

AMERICAN VETERINARY REVIEW.

JUNE, 1901.

All communications for publication or in reference thereto should be addressed to Prof. Roscoe R. Bell, Seventh Ave. & Union St., Borough of Brooklyn, New York City.

EDITORIAL.

EUROPEAN CHRONICLES.

FRANCE FIFTEEN YEARS BEHIND AMERICA.—It is somewhat strange how, among the best meaning ones, injustice is often done to others. Of course, sometimes it is done so thoughtlessly and the object is so good that it is not worth while calling attention to the error committed and try to correct it. The question of priority is among the numerous cases of errors thus committed. After all what does priority amount to? Yet there seems to exist conditions and cases where protest is justifiable, especially when the error is publicly sanctioned by high scientific authority. For instance, at a late meeting of the Société Centrale de Médecine Veterinaire, where unfortunately I was not present, and therefore could not protest at the time, Mr. Cagny called the attention of those present to a *new* (?) mode of treatment of lameness by the subcutaneous injections of spirits of turpentine, claiming that by their use he had been fortunate enough to relieve shoulder lameness of various natures, navicular disease, and sprains of tendons. Without entering into the consideration of the serious symptoms, sometimes alarming, that occur quite frequently, and with which most veterinarians are familiar, it may be said that there is much doubt as to whether the injections were the cause of the recovery or if it was the long rest which they impose, and which for many was more than sufficient to bring on a cure. To American veterinarians this form of therapy is not new, and the records that have been published in our journals tell that

the results have been far from resembling those of Mr. Cagny. But what was the crowning of the discussion was the remarks that Prof. Almy introduced on the use he had made LATELY of injections of cocaine upon the course of nerves of lame legs, for lameness below the fetlock, by injecting at that point, thus differentiating it from lameness of the shoulder; or by injections upon the median or the cubital, or the sciatic or the anterior tibial for lameness between the fetlock and the point of injection, etc.

All this is very well, but why ignore the fact that this means of diagnosis has been used for years by others? In the United States cocaine has been thus employed for fifteen or more years, far previous to the time when the attention of French veterinarians was called to it, by an article published in 1897, a publication which it was said was the first to mention the great services cocaine could render in those cases. It is singular that our colleagues of the Société, who are all well read, should have ignored that as long ago as 1886 the REVIEW had recorded the experiments made by Dr. Torrance and the results he had obtained.

America ahead of France in veterinary surgery! That is too good not to be recorded.

* * *

A HOME FOR HOMELESS ANIMALS. — There exist in all large civilized cities of the world places where lost animals of all kinds and of all natures are brought and kept for a short time, waiting for an owner or a claimant of any kind to come and take them, and if the saving owner does not make his appearance within a short time, two or three days, the said animal is disposed of—sold or killed. Those places, pounds, as they are called, vary in size and importance, according to the administration which has charge of them; some are quite well kept, others are far from it, and the boarders which occupy the stalls or kennels receive care which may be good or bad—more of the latter than of the former, it is claimed by lovers and charitable friends of quadrupeds and of pet animals.

Of course, it can be scarcely expected that the occupants will receive the attention, the food and the pettings that they would have from their owners, if they had such. And, again, it is rumored that in some of those pounds the processes resorted to in freeing the boarders of the sufferings of this wicked world are far from being humane, death being more or less accompanied with unnecessary pains, which sometimes have to be repeated before the result is obtained.

Paris has a pound, of course. But the French *fourrière* enjoys a terrible reputation for carelessness, want of attention, and rough treatment of her inmates.

America has also pounds, whether better or not, I do not know; but in the eyes of many Americans who are living in Paris, as well as other benevolent French people, a home for lost dogs is much needed and must be erected and kept.

A subscription has been organized, and funds are pouring in from all directions. The *New York Herald's* French edition, has headed the list with \$200, and every day it is increased by donations of all kinds. A poodle, "Dick," sends \$100; a fox-terrier, "Dick Freeborn," sends \$10; "A Pomeranian," "Chiffon," "Bob," and many others send \$5, \$2—and to this date nearly \$1200 have been collected.

If it continues, as there is every prospect it will, it will not be long before the new home for dogs will be one of the curiosities to visit in the great city, just as is already the cemetery, which exists in the old island des Ravageurs near Asnières, where tombs are neatly arranged and kept, some with monuments on the graves, which in time to come may make the place a rival of the Père Lachaise or Montmartre.

* * *

THE CONGRESS OF TUBERCULOSIS will be held this year in London, from July 22 to 26. The King of England has accepted the Presidency, and will inaugurate the congress in the great room of Queen's Hall.

The Vice-Presidents, 48 in number, are taken from among the medical, political and nobility of Great Britain.

The Congress will be divided into four sections: (1) National and municipal section; (2) section of medicine, including climatology and sanatorium; (3) that of pathology, including bacteriology; (4) veterinary section. There will be besides an exhibition of public medicine (pathology and bacteriology) and of hygiene, annexed to the congress.

The regulations of the Congress will be as follows:

(1) There will be honorary delegates and ordinary members. The honorary, named by governments or foreign universities, or by the executive committee, will pay no subscriptions.

(2) Delegates of the English government or colonies, or of English or foreign institutions, and the ordinary members, English or foreigners, shall, to receive their cards of membership, pay to the General Secretary of the Congress, 20 Hanover Square, W., London, one pound sterling.

(3) The members will be allowed to attend all the meetings and will receive one copy of the transactions and of all the publications of the Congress.

The cards, giving admission to the private reunions, receptions and excursions, shall be given by rank of inscription; however, if there are too many they will be given by drawing.

(4) The official languages shall be English, French and German.

(5) (6) and (7) relate to the respective work of each section, publication of reports, papers, etc.

The meetings will take place between 9.30 A. M. and 1.30 P. M.

As far as we know now, veterinary medicine of the United States will be represented by Dr. Wray, as delegate of the Bureau of Animal Industry, and Prof. A. Liautard, delegate of the American Veterinary Medical Association.

* *

To conclude this already long chronicle, and to answer the demands that I have received from the United States, I give here the address of Prof. Lignière. Communications can be addressed to him: Laboratoire des Hacendados, Sante Fé, 4299, Buenos Ayres, Republique Argentine.

At the time the requests of my friends in America, who asked me to see him on some subjects had reached me, the Professor had already started on a new mission for the study of diseases of cattle, and it is only lately that I have been able to find his correct address.

A. L.

AS TO THE A. V. M. A.

While we rejoice that general practice is so flourishing all over the country, we trust that veterinarians will not be so engrossed by its exactions as to fail to appreciate the importance of the approaching meeting of the A. V. M. A., and the necessity for early notification of its Secretary as to the titles of papers which they propose to present. Sanitary veterinarians, especially those connected with agricultural and other colleges, have usually the requisite opportunity to engage in such work after the closing of the session, and they will undoubtedly be prepared to enrich the programme with their valuable contributions; but it has long ago been conceded that practical papers must not be omitted if we are to keep up interest and attendance and do the greatest good to the greatest number.

THE SURGICAL CLINICS AT THE A. V. M. A.

A very earnest effort is being put forth to make the surgical clinics at the Atlantic City meeting of the American Veterinary Medical Association the best yet held in this country. Chairman of Arrangements Lowe, at the time of his unfortunate illness, was exerting his energy in stirring up the great veterinary centres to a realization of the opportunity afforded at these clinics to make the meeting of powerful practical interest to practitioners, and he was meeting with much success. The very night he was seized with inflammatory rheumatism he attended the meeting of the New York County Association, and made an earnest address upon the subject. It was not without effect, for a resolution followed directing the President to appoint a committee to assist the Committee of Arrangements in securing operators, the motion including the stipulation that only those

who positively agree to be present and carry out their part of the programme shall be accepted. Accordingly a committee consisting of Drs. Bell (chairman), R. W. Ellis and H. D. Hanson were appointed, and they are now engaged in furthering the objects of the resolution. It is hoped that surgeons who volunteer will select procedures which are commonly undertaken, illustrating the safest and simplest methods of performing them, and also that they will notify the chairman at once, that a place on the programme and suitable material can be secured.

THE NEW YORK STATE VETERINARY MEDICAL SOCIETY set a pace last year that awakened an interest in it from one end of the commonwealth to the other. All who attended were shaking hands and congratulating each other that they were present, and declaring that it was a phenomenal success, and that they would not miss another for any ordinary consideration. They departed for their homes with a righteous determination of working to increase its membership and its usefulness. Holding its meeting this year in the same place, with a committee of arrangements composed of nearly the same men, with last year's experience as a guide, it is fair to assume that the meeting of 1901 will justify the prediction that we are to have a glorious reunion in September, full of intellectual life and activity, with practical work in the clinics which shall make every one better for the time and money spent in journeying to Ithaca. While every indication points to the fulfillment of this view of the event, we must not be over-sanguine, but each member should feel that to attain the ideal results here outlined *he* must do *his* part. The Secretary should receive early notification of *your* contribution to the programme.

WE have in hand a valuable article from the pen of Dr. Charles F. Dawson, of Baltimore, Md., upon the "Dissemination of Infectious Diseases by Insects," which will be printed in the July REVIEW.

THE interesting experiences of Dr. Hal C. Simpson, in veterinary charge of a British transport for South Africa, are given elsewhere. This will be followed by an account of his journey to the Philippines.

ORIGINAL ARTICLES.

OXYGEN AS A THERAPEUTIC AGENT.

BY DR. J. CAMPBELL, CHICAGO, ILL.

Read before the Chicago Veterinary Society, December, 1900.

(Concluded from page 99.)

If the solution of continuity produced either by a direct injury or from thrombosis, causing the death of the part cut off from the blood supply; if it become infected by any of the many varieties of vegetable parasites, the process of destruction will be quite rapid; but, supposing it does not become infected and yet passes over month to month and year after year and still does not heal, what rational conclusion can we arrive at? First, we know full well that almost any wound inflicted on a healthy subject, whether man or beast, under favorable surroundings, if kept clean, will readily heal by first intention, without any other assistance. I have frequently heard the statement made that an old sore of this kind was the result of blood disease and therefore must be treated constitutionally. As a rule the constitutional treatment has about the same result as the local. In coming to this conclusion the doctors were correct in part, but in part only. While it is true that the trouble is located in the blood, yet the rule is that it is not a general condition of the blood, but a local one (and amenable to local treatment) and due entirely to a deficiency of oxygen to the particular part where the ulcer or sore is located.

While it may not be an easy matter to explain to the satisfaction of all why there should have been a deficient supply of oxygen to the part in the beginning to cause this condition, yet it is easily understood why there is a deficient supply after the

ulcer or sore has become established. It has been very thoroughly demonstrated that by regular and uniform pressure all the blood can be forced out of a limb so that a perfectly bloodless operation can be made; on the same principle, the indurated mass surrounding the ulcer or sore exerts a uniform pressure on the circulation and impedes or retards it. We believe all surgeons will admit this statement to be a fact. Suppose, therefore, for the sake of argument, that this impediment to the circulation amounts to 20 per cent., what is the result at the ulcer?

The 4-5 of the normal supply circulating through the indurated mass is required to give up as much oxygen to the tissue for its support as would be required from a full supply; again, the amount of carbon dioxide taken up by the reduced circulation is the same as would be given up to a full circulation; hence, when the blood reaches the ulcer, the proportions of oxygen to carbon dioxide are very materially changed; instead of being one to four—the normal amount found in venous blood—we have a proportion of one to five or more. If one to four be about the limit at which tissue can be repaired, it then becomes very evident why a condition of that kind will not heal, and our course of treatment in order to be successful is also very plain.

If such a condition is brought about and maintained from a lack of oxygen circulating in that particular part, and if a certain per cent. of oxygen in the blood is absolutely necessary to the work of reparation, then it becomes evident that the only rational course we can intelligently pursue is to supply the want. The above proposition has been clearly and conclusively proven during the past 80 years, when Drs. Hill, Thornton, and Cavallo made their experiments on oxygen as a therapeutic agent, beside very many others of repute since that time; but as all of those men were obliged to use it in the form of a gas, we understand why it did not come into general use. For many years the attention of many of the brightest minds the world has produced has been directed to the question of obtaining

oxygen in such a form that it could be utilized and made available and practical, both to the practitioner and surgeon, in the treatment of those diseases and conditions to which it is applicable.

While oxygen exists in nature in unlimited quantities and combines with almost everything in varying proportions, yet there does not exist in nature a single compound of oxygen where it can be utilized to advantage in the treatment of disease. For instance, in pure water we have over 90% pure oxygen, yet its combination with hydrogen is such, that the oxygen is not and cannot be made available in practice. So, also, with all the others; from some we can obtain oxygen, but while we get the oxygen we also get other agents that we do not want. To get a compound from which oxygen could be obtained comparatively cheap where the supply would be automatic, regular and uniform, without the interference of any element that would be in any way detrimental, has been the object of my study for a number of years. In preparing a compound of this kind there are several points to be considered: first, we must have a chemical compound; second, that compound must be stable under all ordinary conditions except one; third, it must be so compounded that the affinity of venous blood for oxygen will break up the compound; fourth, the compound must be so regulated, that pure arterial blood will have but little if any effect in breaking it up; fifth, that it is only when the compound is broken up that the oxygen will be evolved and chlorine liberated; sixth, the combination is made and must be made in such a way that the evolved gases, oxygen and chlorine, can only act in their nascent state; seventh, the combination is made in such a way, that as soon as the venous blood has received its normal supply of oxygen, its affinity for oxygen is lessened to a point where it will no longer extract oxygen from the compound. This being true it can be readily understood how and why an application can be made to an ulcer that will remain effective for three or four days. To this preparation I have given the name "Oxychlorine"; oxygen being the prin-

cipal agent and chlorine the secondary, these two gases being the only active agents in the compound.

One pound of oxychlorine is equivalent to about 48 gallons of pure oxygen. In an indolent ulcer such as I have described, you can readily understand why there is a deficiency in the supply of oxygen at the ulcer; this deficiency can be closely approximated by noting the extent of the indurated mass surrounding the ulcer, and the consistency of the induration. If the induration be firm and resisting, the result will be that the circulation will be largely impeded, or, in other words, the circulation will be impeded in direct ratio to the density of the indurated mass. Again, remember that the indurated tissue requires just so much oxygen for its sustenance and support as it would require under normal conditions; also that the amount of carbon dioxide given up to the blood will be the same as the amount given up to a full circulation. Now, for the sake of argument, suppose that we assume that the indurated mass surrounding the ulcer is sufficiently dense to retard the circulation, say 20%; that would leave 80% of the normal supply to do all the work that is required from a full supply; again, supposing the indurated mass was equal in weight to one pound of the economy; this one pound of tissue is only receiving a 4-5 supply of blood, yet it is required to give up as much oxygen from the blood to the tissues as would be called for from a full supply, and also the amount of carbon dioxide taken up by the reduced supply will be equivalent to what would be taken up by the normal circulation; this being true, you can readily see why the blood when it arrives at the ulcer only contains about one-half of its normal supply of oxygen, thus largely increasing the proportion of carbon dioxide to oxygen in the blood.

The proportion of 1 to 4 has been fixed by nature as the limit, or about the limit, at which the reparative process can take place; and it is also an established law of nature that oxygen is absolutely necessary to the work of assimilation, and is the only agent that can bring about and consummate the reparative process; believing this, our course of treatment becomes

plain—we must in some way and by some means supply the deficiency in oxygen to the affected part. To an ulcer such as I have described, the deficiency would amount to 1-2 gallon of oxygen in 24 hours. To obtain that amount would require 1-6 of an ounce of oxychlorine, costing by the pound 2 6-10 of a cent for one day's medication. To make this treatment by oxygen effective, the supply must be uniform, regular and continuous. As the blood to the part is ever arriving, ever departing, in an uninterrupted, continuous flow, so the supply of oxygen to be effective must be ever present and ready to meet the demand. Here is a most important feature about oxychlorine: no matter how much you apply, the blood will only utilize so much; the balance will remain unchanged.

While we have devoted considerable time to the treatment of the indolent variety of wounds and ulcers, yet it must not be supposed even for a moment that this is the only class of cases where oxychlorine is to be used. Going on the principle that an ounce of prevention is worth more than a pound of cure, we fully believe that the great field for oxychlorine is in the prophylactic treatment of wounds. All wounds are liable to become infected, and I should think especially so in horses, on account of their surroundings. Now, if any infected wound be opened up, so that you can readily get at the infected part, then, as a rule, one good application of oxychlorine will be sufficient to destroy all the infection, and it will do that without injuring a single living, healthy cell; now, if oxychlorine will destroy infection when fully established, it must follow as a natural consequence that it will prevent infection. Take any fresh wound on man or beast, wash it thoroughly with a solution of oxychlorine—about six per cent.; then apply oxychlorine in powder, put on a bandage to keep the powder in place and that will be all the treatment that will be required. One thing I wish to call your attention to especially; that is, oxychlorine to be effective, where it is used alone, must be applied to a surface where the skin is broken; there must be a solution of continuity to enable it to act. On large wounds, where a few

stitches are necessary to close the wound, I would first wash out the wound as before stated with a solution of oxychlorine, then over the line of stitches apply the oxychlorine in powder. Do this, and you can rest satisfied that you will have union by first intention.

So far we have dealt only with oxygen, except to state that oxychlorine consists of a combination of the two most powerful gases known to scientific medicine. Heretofore the word chlorine has always been associated in the minds of medical men with cautery or poison. There are few, if any, who realize the fact that chlorine gas can be brought in contact with a wound and not cauterize. The teaching in all schools so far as we know has been that chlorine gas brought in contact with a solution of continuity, will decompose the molecule of water and form hydrochloric acid, setting oxygen free; the result will be a cautery. This we believe is what has been and still is taught. Now, while that is true so far as chemistry is usually taught, yet it is not true when used in oxychlorine, for the very simple reason that hydrochloric acid cannot be formed in the presence of an excess of nascent oxygen; the result is, that you have all the good effect that can be obtained from those two powerful gases acting together in their nascent state.

There are other conditions often met with where oxychlorine by itself is not applicable; for these conditions we put up another preparation, called "Oxychlorine Plastic Dressing." It is composed of oxychlorine, C. P. glycerine and dehydrated silicate of alumina and magnesia, all of which are hygroscopic. The oxychlorine is dissolved in glycerine; the glycerine being a hydro-carbon is absorbed by the tissues and takes the oxychlorine with it, and thus by osmosis it reaches the circulation. When this dressing is placed over an inflamed and swollen part, the process of osmosis and exosmosis is at once set up; the glycerine with the oxychlorine is absorbed by the osmosis and the fluid exudate is removed by exosmosis; in this way the swelling is rapidly removed, especially in acute cases.

In cases of long standing the swelling is removed and the

vessels restored to their normal condition much quicker and better than by any other known dressing.

By the use of oxychlorine plastic dressing you obtain a double action, which cannot be obtained by any other known dressing. As can be readily understood, the oxychlorine in solution in glycerine is readily absorbed by the tissues; and when absorbed, the oxygen from the oxychlorine is taken up by the blood in the capillary circulation; this oxygen taken into the circulation at the inflamed part adds new life and vigor to the blood cells, and very materially aids and assists nature in removing the fluid exudate in her own way. In addition to this you also remove the fluid exudate by the process of exosmosis through the skin. Of all other plastic dressings manufactured and sold on the market (no matter by what name they are called) for inflammation, they have but one action, namely—the removal of the fluid exudate by exosmosis; that is the artificial way of removing the exudate and getting rid of the swelling; the natural way is by absorption; this is the way the God of Nature intended that the fluid exudates should be removed—and the good physician is the one who recognizes the fact that it is his duty to aid and assist nature as nearly as he can. While it is true that you assist nature in her work of reparation by removing the fluid exudated by exosmosis, yet it is equally true that you assist her more and better by aiding her to remove it in her own way. This becomes very apparent in the treatment of an old case of sub-acute or chronic inflammation. Again, oxychlorine plastic dressing is superior to all other forms of dressings, from the fact that it can be placed over any form of wound, sore or ulcer, without any fear that the wound will become infected. In fact, it carries sufficient oxychlorine to render it a perfect prophylactic against any form of infection.

VETERINARY PRACTICE has been exceedingly good this spring. Buyers of horses have been forced to pay such long prices that they very generally seek expert opinions upon the question of soundness.

A PRACTICAL TALK TO PRACTICAL MEN.

By J. E. BROWN, V. S., OSCALOOSA, IOWA.

A Presidential Address delivered at the Omaha meeting of the Iowa and Nebraska Veterinary Medical Association, Nov. 20, 1900.

Only a little over a year ago quite a number of Iowa and Nebraska veterinarians gathered here in this city to bear witness to and rejoice in the birth of a new Veterinary Medical Society.

This new comer into the veterinary fraternity of the West was the outcome of a particular intimacy, friendship, and finally a union, in the interests of the veterinarians of these two States.

Springing from such a parentage we were naturally filled with enthusiasm and joyous anticipations concerning the future growth and development of the offspring; to-day we reassemble to do her honor by the celebration of her first anniversary, and to plan for her farther maturity and future usefulness.

I am sorry that I am unable at the present time to refer to the object now claiming our attention by title, but unfortunately she has not yet been christened; the recommendation of a suitable name or title being one of the duties of our committee on organization, not yet reported.

There is apparently no limit to the growth and influence possible to this organization, nor to its value as a professional and social educator to the members of the western veterinary profession.

Here in the very centre of the Great West, the greatest agricultural and stock-raising country that God ever permitted the sun to shine upon, is certainly destined to become the garden spot of the world for veterinary surgeons.

Such a country will not only demand but will command the very best—the most learned and thoroughly competent and fully equipped in every sense—veterinarians that the profession affords.

The present representatives of the veterinary profession in the West are almost universally an energetic, hard working lot

of fellows, sufficiently ambitious to maintain their places in the front ranks and to avail themselves of all the benefits obtainable through the various avenues leading to knowledge.

It would be impossible for us to conceive of a more fertile source of practical knowledge than that which comes to us through a meeting of real, earnest, thoughtful, intelligent workers in veterinary science.

Their considerations and discussions on the various subjects which come before them, the clinical demonstrations and the individual intermingling one with another, are indeed ideal methods for practical education.

(Apparently some of our brethren in the rural districts have not yet learned this, but it is true all the same.)

Then recognizing veterinary associations through their meetings as being the greatest propagators of real practical veterinary knowledge, we can only predict a wonderful growth for the one we are to-day to dedicate.

Our present organization is only a little nucleus, around which will gather the wisdom and strength of the Western veterinary profession.

Its influence shall manifest itself, and it shall be recognized throughout the length and breadth of the land on all great questions pertaining to veterinary and sanitary science.

While Iowa has not had nearly as many graduated veterinarians as many of the States farther East, her State veterinary association has for many years enjoyed the reputation of being one of the best, both in points of attendance and in the character of its meetings.

Nebraska, with a far less number of veterinarians yet than Iowa, can safely claim, I believe, that a larger percentage of her veterinarians are members and supporters of her State veterinary association than any other State in the Union. It will now be seen that the veterinarians of these two States have assumed the responsibility of the support of three veterinary associations, and this in addition to the aid they may and will give to the American Association.

Did I hear a voice dare to raise the question, Will they support them?

Not much. Everybody knows too well the sort of stuff that these fellows are made of.

They are not perfect. No, not that; but they do belong to that class that "never say die" when engaged in a good work.

We have our imperfections just like the balance of weak, struggling humanity. We have our short-comings, which I believe, if we were duly reminded of from time to time, would work a wonderful improvement in our general condition.

We do not see our own imperfections as others see them.

Might I be pardoned, then, if I should call attention to some of them as they have appeared to me?

One thing is the neglect of certain duties which we owe to the associations of which we are members.

For many years, as many of you know, it has been my privilege to serve my own State's association as Secretary, and I speak with that knowledge that comes by the line of experience.

As the time for our meetings would approach it would become necessary to go among our members and solicit papers, reports of cases, etc.

The excuses that have been offered in reply were simply astonishing.

It was not that the members lacked interest exactly; they were interested in the success of the meetings and so expressed themselves, but the illustration I wish to make is this: that the veterinarians, like the representatives of every other line of business here in the West, are so imbued with the spirit of hustle, that it is only by an extreme effort that they can content themselves to quietly sit down and give their time and attention to such matters.

Now, gentlemen, let us not neglect such duties.

Let each member bear in mind that he is jointly responsible for the success of the meetings.

As we work along, from time to time new ideas and new

methods come to us, which when put into execution prove to be valuable aids in our work.

Let me impress upon your minds the importance of making special notes of all such things, for the express purpose of bringing them before just such meetings as this.

Give the profession the benefit of your findings.

Simple as some of these things may seem to you, too simple you may think to occupy the time of the meeting with, yet just remember that if the thought was new and good to you, it will be new and good to some one else.

I sometimes think that in these meetings an effort is made to be what some might term scientific that many of the more practical and therefore helpful things are entirely overlooked.

Do not be afraid to write papers or make up reports of certain interesting cases; either are always acceptable.

Do not always wait to be asked to do these things.

You can hardly imagine what a relief it is to have these come as volunteers.

There are many more questions pertaining to association rights and privileges and duties that might advantageously be discussed, but I have in mind another subject which I consider of still greater importance to the future prosperity of the profession; so, after having started your minds along that channel of thought, it will be left for further consideration to your own good judgment.

Too well do we all know how in the past every honest and conscientious effort that the veterinarians have made toward progression (I mean of a public nature) has been antagonized by that same old spirit born of prejudice toward veterinarians that has been so thoroughly grounded into the hearts of the people by that uneducated, unintelligent and usually morally degraded class of men who have been known in the years gone by as "horse doctors."

It has been found no easy task to overcome those prejudices, nor to educate the public mind to distinguish the difference between the two classes.

It was the lack of differentiation by the public that has been our constant chagrin and that has figured so conspicuously in the defeat of so many of the very laudable measures attempted by us, which we well knew would mean a betterment in many of the conditions wherein the public would share the greatest benefits.

It was the lack of respect, confidence and influence in the profession by the public that has stood between us and our accomplishment of the greatest public good. We become impatient and fret because we cannot eradicate these prejudices from the public mind more rapidly and command a greater influence, and I wonder if we ever stop to consider that one of the principal reasons why we cannot is the ever presence of "the wolf in disguise."

They pose as qualified veterinarians and boast of diplomas as good as anybody's. We find them lounging about the streets, livery barns and race tracks, and they manifest about the same degree of self-respect as do the men they find in such places and with whom they associate.

Gentlemen, do you realize that the one thing, greater than all others, that stands to-day between us and that respect and influence which we would that we might command, is that which savors of so much quackery and lack of *self-respect*—the careless habits and the unclean daily deportment to which so many veterinarians are slaves, yet so unfitted and unbecoming to professional men?

Can we not, then, arouse within the hearts and minds of all our brethren a more determined effort toward the manifestation of the dignity that naturally should come with education, and that always commands respect from *all* classes.

I am not advocating absoluteness in this respect excepting as it may apply to the character and integrity, for there need never be any blight attached to that, for no one knows better than the speaker how difficult it is at *all* times and how impossible it is *sometimes* for a busy practitioner to maintain a presentable appearance; but in the interests of the profession I

do earnestly plead for the observance of neatness and cleanliness in so far as it can be made compatible with our work.

I am fully aware that of necessity with the dirty work we have to do our clothing cannot long be kept spotless; that is not expected; but there is no excuse for our habitually going about the streets, about our business, or appearing in public places in a careless, dirty garb and general slovenly make-up that we sometimes see.

A respectable hat, a smoothly shaven face, a well-kept beard, a clean collar and tie, the actual mud and loose dirt brushed from the outer clothing, and a touch of polish on the shoes, are features of every-day dress that go a long way toward giving one a respectable, gentlemanly appearance, and certainly none of these things are beyond the attainment of any practicing veterinarian.

It is true that very many of the people with whom we have to associate in business are not inspiring to us in this respect. We all know who they are. Many of them have come into the world blighted by birth; they have had no education, mentally or morally, that tended to inspire, hence no ambitions, and therefore with these there should be no comparison.

I have not a word to utter against the honest laborers in the very lowest vocations of life, but certainly all veterinarians should aspire to rise above the styles, the habits, and the associations of the street loungers, the common hostlers or the race horse swipes.

Yes, we must hold the confidence and respect even of these, else in our work sometimes it would be in a measure handicapped; but, gain and maintain that confidence and respect, not by constant companionship, which only breeds familiarity, but by kind words when thrown in contact, an ever gentlemanly conduct, and always strict attention to our own business.

It is one of the powers and privileges vested purely within our own selves, that each may so deport himself that credit and dishonor will reflect not only upon himself but also upon the profession which he represents, and, likewise, if he so deport

himself as to reflect discredit and dishonor upon himself, the same will reflect discredit and dishonor upon the profession in the eyes of the people.

Little do we realize, sometimes, the extent to which our moral and intellectual worth are estimated by those who see us simply upon the evidence of our appearance and our general conduct.

Recapitulating these, if I am correct in the matter, the essential attributes to, and on which the public will build confidence in our profession, are, first, a proper education; then self-respect, genteel habits and deportment and an honest endeavor on the part of each one of its representatives.

To obtain this, of course, no general law can be proclaimed, but let each one of us adopt a moral standard, such as we conscientiously feel it should be, live up to and beyond it, and the examples we set will gradually but naturally be patterned after by those whom we have not yet been able to induce to come in and share in the good things of our meetings.

VERMINOUS BRONCHITIS.

BY CHARLES H. BLEMER, D. V. S., SACRAMENTO, CAL.

Read before California State Veterinary Medical Association, March 18, 1901.

In November, 1899, I investigated an outbreak of alleged contagious pleuro-pneumonia in Kings County, California, and upon thorough examination found the disease to be due to the *Strongylus Micrurus*, a nematoid or hair-like worm which inhabits the bronchi and their ramifications.

In my opinion this disease has existed in this State for many years, but the cause has been overlooked and the trouble pronounced some other disease—but is now known to exist in Los Angeles, Kings and Humboldt Counties.

Of the eight species of strongyli which inhabit the air passages of domestic animals, that producing the disease in the above mentioned outbreak was recognized as the *Strongylus Micrurus*, a hair-like worm, from one-half to three inches in

length, the female being longer than the male. It is generally believed that the female deposits the embryos directly into the bronchi of the host, but that the same do not develop there, but must necessarily be expelled from the animal to pass the first stages of their existence. They live in water for months, and it is claimed that the embryo under certain conditions, will, after having been dried a year or more, revive when placed in water.

There are many unsatisfactory theories advanced as to how the worm enters the host. The most probable one being that said embryos enter the body with water or along with damp grasses.

The attention is first directed to the disease by a slight cough, which gradually becomes stronger and husky, ending in paroxysms and suffocation. The worms and embryos are expelled from the mouth or nasal cavities along with mucus by severe coughing. When the progress of the disease is slower the symptoms are milder, but owing to disordered nutrition, loss of appetite, etc., the animal rapidly emaciates.

Inhalations, combined with tonics, are apparently of the most benefit in the treatment of this disease. Intertracheal injections of either chloroform, turpentine and carbolic acid, or oil of amber, appear to be of benefit, but are unsatisfactory on account of swellings and abscesses when the fluids get into the tissues.

The best results were obtained from a mixture of chloroform and oil of turpentine or amber, equal parts, also a little formaldehyde. One or two teaspoonfuls of this mixture was poured into the nostrils and allowed to vaporize.

Any bitter stimulating tonic, arousing digestive function, may be given.

Owing to the unsatisfactory results to be obtained from any treatment it is of obvious importance to prevent the spread of the disease as much as possible. Ignorance as to the life history of the parasite renders any prophylactic measure rather uncertain, recognizing, however, the utility of drying and

draining damp pastures, and the destruction of animals dying from this malady.

I have to thank Dr. F. E. Twining, Veterinary Bacteriologist, of Fresno, Cal., for valuable assistance in the Kings County outbreak.

ALKALOMETRY IN VETERINARY PRACTICE.

BY ROBERT W. ELLIS, D.V.S., NEW YORK CITY.

While the alkaloids, or active principles of drugs, have been used in veterinary practice for a considerable time, to a limited extent, hypodermically, as in the administration of morphine, atropine, physostigmine, pilocarpine, gelsemine and a few others for special conditions, "alkalometry" in the accepted sense of the term, which is the administering per orem of the measured or weighed alkaloids of drugs in granule form, as adopted by many thousands of physicians throughout our land, is decidedly a new departure in veterinary medicine; and one we believe destined to increase in its popularity and become a permanent feature, more especially in that branch of veterinary medicine known as "canine practice," in which, with us, it has long since been regarded as indispensable. Alkalometry possesses many features which commend it to us. Its certainty of strength, being the very salt or vital part of the drug, divested of all its crude properties, insures a certainty of action, so gratifying to practitioners. The fact that it is known what each granule contains by weight, makes the arranging of a dose possible without the necessity of scale or measure, hence their convenience and accuracy at any time or place. And the fact that the alkaloids are prepared in granule form, also makes their administration to the canine patient easy, by placing them well back on the base of the tongue, the dog swallowing them without realizing that he has been given a dose of medicine. This has the double advantage of causing the patient to get his proper dose (instead of losing a portion of it when given in liquid form), and of not exciting him, which in some cases

retards recovery, in others even making it impossible. To cite an instance where they are a decided advantage (and this occurs every day), we are called to see a dog, perhaps in a lady's boudoir, where she has him upon her lap, or some fine article of furniture, and we decide from his condition that it will be advantageous to begin his treatment with a cathartic. Now, under the old system, we would prescribe, perhaps, castor oil and syrup of buckthorn, or something equally bulky and nasty, and on calling the next day we naturally want to know if the medicine has "acted," and we are informed that he has not had it, that he positively refused to take it, and almost threw himself into a fit resisting it, and so they ceased to try to force him further. Consequently, our first step in the treatment is balked, and we may expect the same difficulty right on through it. On the other hand, if you practice "alkalometry" in that situation, you would remove from your pocket your nice complete "pocket-case," and administer to his dogship sitting right on his mistress' lap, or the dainty piece of furniture, as the case may be, with no fear of soiling anything about you, two, three, or four grains of aloin, and one or two grains of calomel, in keeping with the size of the dog. The dog scarcely realizes that he has taken anything; but when you call next morning, he *has* realized it, and so have those caring for him, and the answer to your inquiry invariably is, "I should think so, Doctor." That may seem a small dose of aloin, and I confess that I used to fail to get results from a much larger quantity, as I used to give it in capsule, but the granules made by the Abbott Alkaloidal Co., which I use, have given me the afore-said results. And so right along the line you may look for accuracy and activity of result in these alkaloids in granule form, administered per orem.

To mention a few of the indications for the employment of certain alkaloidal preparations in my experience, I might point, first, to one that finds a very useful place with me as a "tonic." The iron arsenate in granules of 1-67 of a grain. Of these I give two to four at a dose at three to six-hour intervals. In paraly-

sis, so common in dogs of plethoric dispositions, strychnine arsenate, in 1-134 of a grain, finds a most useful place; given in from one to two granules at a dose, from a half hour to two-hour intervals, according as the exigencies of the case may require. Podophyllin, 1-12 grain, three to six a day, as a laxative to dogs with a tendency to constipation. Lithium salicylate, 1-6 grain granules, six to twelve a day, in scanty high colored urine, has proved highly beneficial with me. Camphor monobromated, 1-6 grain, two to three granules at a dose every three hours, makes a good adjunct to other treatment in pneumonia in dogs; my other treatment being one to two grain dose of quinine at three-hour intervals, and if the dog refuses to eat, "Malted Milk," administered with a spoon, and raw eggs given in the same manner.

To get back to the subject, after quinine sulph., we will speak of quinine arsenate, in general debility, given alone or in conjunction with iron arsenate, is a splendid builder. It is put up in the Abbott list in 1-67 grain granules. Arsenious acid, in the same size granules, is convenient for administering wherever this drug is indicated. Salol in 1-6 grain granules proves very efficient in acute rheumatism, cutting it short in a few hours if persisted with. Caffeine in 1-67 and glonoin in 1-250 grain granules, are two very potent and important active principles to combat a collapse following a long sickness or from shock. Anti-epilepsy (timmerin), which consists of atropine sulphate, 1-600 of a grain, and glonoin 1-500 of a grain, in one granule, proves very efficient in my hands in the treatment of epileptic fits in dogs, causing a dilation of the capillaries and relief of brain symptoms, and general relaxation of muscular tension, very promptly. Calcium sulphide in 1-12 grain tablets is one of the best in the list, having such a wide range of usefulness. It is useful in skin diseases by its property of causing the cessation of suppurating processes, hence its application in mange, eczema, pustular dermatitis, etc., and from its newly discovered property as an anaphrodisiac, is usefully administered in young, growing house-dogs, at that annoying age when

every object with which they come in contact arouses their sexual propensities. I have demonstrated its efficacy in these cases to my entire satisfaction. Zinc sulphocarbolate in 1-6 grain granules in cases of distemper with intestinal complications, foetid diarrhoea, etc., is very efficacious. In addition to those mentioned as having special and general application in practice, my "case" also contains calomel in $\frac{1}{2}$ gr. tablets, bismuth subnitrate, 1-6 gr. granules; tannic acid, 1-6 gr. granules; codeine sulphate, 1-67 gr. granules; acetanilid comp., in tablets (acetanilid, 1 2-5 grs., caffeine, 1-5 gr., and bicarb. sod., 2-5 gr.); acid carbolic, 1-12 gr. tablets; benzoic acid, 1-67 gr. granules; morphine sulph. 1-12 gr. granules, and cerium oxalate, 1-6 gr. granules. Besides the contents of the "pocket case," I maintain what I term my "standing army," not very large, about 30,000 strong, but of picked material in my estimation. A stock of one thousand each of the 24 already enumerated, and in addition, a thousand each of the following, constitute this army: Atropine sulph., 1-500 gr.; aconitine amorphous, 1-134 gr.; ergotin, 1-6 gr. granules, and anemonin, 1-134 gr. granules; "triple arsenate," which is a compound of strychn. arsenate, 1-134 gr., quinine arsenate 1-67 gr., and iron arsenate 1-67 gr., a very reliable reconstructive tonic. "Triple arsenates with nucleon," in tablet, being the same as the preceding, with the addition of two drops of nucleon solution to each tablet. This combination is not only a reconstructive tonic in a general way, but has a special application where the sexual organs are involved. It is a reliable aphrodisiac. With this stock of alkaloids at our command, office practice becomes a pleasure, as we feel that we are equipped to cope with any condition that is likely to present itself to us. Drug preparation has advanced by steps, from the use of the dried plant from which decoctions were made, or the green plant bruised to a pulp, to the tinctures, fluid extracts, and finally to resins and alkaloids, and having always been partial to concentrated preparations, having for many years used the fluid extracts undiluted upon the tongue, in preference to more dilute and bulky

preparations, in general practice and hypodermically, as many of the alkaloids as was practicable, I took very kindly to the alkaloidal preparations so conveniently prepared for internal administration, introduced to the veterinary profession a year ago by the Abbott Alkaloidal Co., of Chicago, through the media of this journal, and rejoice at the realization that we are able to procure the active principles of the drugs we desire to employ separated from the grosser materials, accurately weighed and put up in convenient form for administering internally, with no greater exertion necessary upon *our* part than paying for them. This is a condition of affairs we feel that merits a vote of thanks from the veterinary profession to the makers of these alkaloids, and to the thousands of their supporters in the medical profession that have made it possible, through *their* support, for these people to place them at *our* doors, and congratulations to the veterinary profession that they have been so placed within the reach of all. At some future time I shall report some experiences with the alkaloids in equine patients similarly administered.

THE PRESENCE OF PHOSPHATES IN THE URINE OF THE HORSE.

BY PIERRE A. FISH, D. SC., D. V. M., N. Y. STATE VETERINARY COLLEGE, ITHACA, N. Y.

Read at the meeting of the N. Y. State Veterinary Medical Society, Ithaca, N. Y.
Sept. 13, 1900.

The presence of phosphates in herbivorous urine has been a mooted question until a comparatively recent period. Even at the present time there are some who deny such existence. Phosphates are abundant in the urine of omnivora and carnivora, but present only to a slight extent in that of herbivora. The first and most natural explanation for this state of affairs would seemingly point to the difference in the diet of these three great groups of animals.

That this is not entirely the true explanation is readily un-

derstood when the food supply itself is examined ; for the plants upon which the herbivora exist are relatively rich in phosphates, and we must explain their slight appearance in the urine from some other standpoint. In order to get at the subject in a comprehensive manner, the relationship of the phosphates to the food supply should be noticed.

The Relation of Phosphates to Plants.—Biologically plants are classed with living beings ; they possess vital properties ; they possess anabolic and katabolic functions ; they assimilate and disassimilate ; their tissues are built up and the waste material is removed, fundamentally, in a way quite comparable to that in higher forms ; they have the power of elaborating the inorganic material derived from the soil and building it up into new organic or protoplasmic combinations.

The phosphates with which the plants are directly concerned are four in number, namely : the phosphate of potassium, the phosphate of lime, the phosphate of magnesia, and the phosphate of iron.

The earth is especially rich in the phosphates of iron and alumina ; phosphates of lime and magnesia are found in quite variable quantity and sometimes in extremely slight amounts ; the phosphate of potassium is not normally present, and the slight quantity found in some analyses is derived from the organic débris undergoing decomposition in the soil. The phosphate of alumina, quite generally abundant, does not seem to be made use of as such by the plants. In order to be utilized it must apparently undergo decomposition in the soil, and then resulting phosphoric acid forms new compounds, such as the phosphates of potassium, lime, and magnesia.

The phosphate of potassium, although scarce in the soil, exists in considerable amount in the seeds of the plants. It is readily soluble in water.

The phosphates of lime and magnesia are insoluble in water alone ; but they are easily dissolved in water containing carbonic acid, and the moisture of the soil is generally favorable for this purpose. The phosphates of potassium, lime and magnesia,

because of their solubility, are, therefore, most easily absorbed by the plants.

The phosphate of iron is insoluble in water, or in water containing carbonic acid, and becomes soluble only under certain complex conditions, so that its use by the plants is comparatively limited.

Distribution of Phosphates in Animal Tissues.—In the tissues of living beings five forms of phosphates are encountered, namely: the phosphates of potassium, soda, lime, magnesia and iron.

These phosphates are unequally distributed in each kind of tissue, but some particular one of them may predominate in a certain organ, or a particular organic system. Thus, the phosphate of potassium predominates in the nervous system; the phosphate of sodium predominates in the blood plasma; the phosphate of iron in the red corpuscles; the phosphate of magnesia in the muscular tissues, and the phosphate of lime in the bones.

The soluble alkaline phosphates are more especially present in organic liquids or tissues of soft consistence. The phosphate of soda in the plasma (liquid), the phosphate of potassium in the nervous system (soft consistence).

The insoluble earthy phosphates are more especially reserved for the solid tissues. The phosphate of magnesia associated with the phosphate of soda and phosphate of lime predominates in the muscles (semi-solid), the phosphate of lime is in excess in the bones (solid).

Elimination.—The phosphates, thus generally distributed through the great tissue systems of the animal body, are influenced by all metabolic processes, and, like other compounds, are being torn down and built up as the result of physiological activity. Pathological conditions, affecting any of these systems, by interfering with the anabolic or katabolic functions, influence, one way or the other, the elimination of the products of metabolism.

The two principal channels for the elimination of the phos-

phates are through the kidneys in the urine and through the intestines in the fæces. In the omnivora and carnivora the principal channel is through the kidneys; in the herbivora the principal channel is through the intestines. It is believed that in the latter the phosphoric acid taken in with the food combines to a large extent with bases which have become separated by the action of the digestive juices upon the food, and a large portion of the phosphates thus formed passes out with the fæces.

The amount of phosphates eliminated is affected by purely physiological processes, and also by pathological conditions.

Physiologically, a diet rich in phosphates, such as a large feed of oats, bran or oilcake, increases the amount of phosphates in the urine; exercise or vigorous muscular work, or anything which promotes metabolism increases the amount of phosphates eliminated.

Pathologically, any disease affecting any of the tissue systems in which phosphates are present, will affect the amount of phosphates excreted. Among such diseases may be mentioned rheumatism, diseases of the nervous system, rickets, osteomalacia, osteoporosis, spavin, ringbone, splint and navicular disease, in all of which the amount is increased; on the other hand, the phosphates are decreased in renal diseases and tuberculosis.

The examination for urinary phosphates is, therefore, of much clinical importance for purposes of diagnosis and prognosis. The great number of bone diseases to which the horse is subject, renders it very desirable that one should be able to follow the course of the disease and outline the treatment according to the information obtained from the analysis of the urine with reference to the phosphates.

Information may thus be derived as to whether a spavin, ringbone, or splint is in its active stage, shown by an increased amount of phosphates in the urine, or if the period of active change has passed over and the phosphates no longer appear in undue amount, although the exostosis remains. In this way one

can determine whether or not the disorder is active or quiescent; one may also more easily determine the seat of lameness according to such examination, whether due to spavin, etc., or to hip or to shoulder lameness, as the case may be, and arrange the treatment accordingly. In cases of fractures an enormous amount of phosphates are thrown out into the urine. The progress of knitting together and healing of the parts may readily be followed by noting the gradually diminishing amount of phosphates in the urine.

For purposes of diagnosis or prognosis a quantitative determination of the phosphates is essential. This formerly was beyond the reach of the ordinary practitioner, because the skill, training, experience, time and the complicated methods were not available, but with the introduction of the centrifuge, an apparatus comparatively inexpensive, such quantitative determinations can be made in from three to ten minutes by any one who can prepare the proper chemical reagents and mix them in the proper proportions in the tubes.

The urinary phosphates are divided into two general groups: the earthy and alkaline.

The earthy consists of the phosphates of calcium (abundant) and magnesia (scanty). They are insoluble in an alkaline medium, but to a certain extent are held in solution in the urine by the presence of free CO_2 .

The alkaline consist of the phosphates of sodium and potassium and are very soluble. They never form ordinary urinary deposits. They are more abundant than the earthy.

The urine of the horse is always more or less turbid and this is due for the most part to the deposition of certain of the salts before the urine has been passed from the bladder. These salts consist mainly of the carbonates, but also, to a smaller extent, of the earthy phosphates.

A frequent source of error in testing for phosphates in the urine of the horse is in not allowing time enough for the precipitate to settle. On account of the density and viscosity of the urine the precipitate does not always form nor settle readily

and frequently an hour or more should be allowed after the reagents are mixed with the urine in order to insure a total precipitation. This is true particularly of the magnesian test.

The metabolic processes concerned with the phosphates are not altogether dissimilar to the action upon the nitrogenous constituent of the proteid food stuffs, and in some ways there is an apparent correlation.

Summary.—Phosphates in the soil that are of direct use in the metabolism of plants are: the phosphates of potassium, lime, magnesia and iron. When the plants are eaten as food and after being subjected to the action of the digestive juices, their phosphates are decomposed and the resulting phosphoric acid forms new combinations and these are distributed to the various tissue systems.

In the animal tissues, the phosphate of potassium is found especially in the nervous system; the phosphate of sodium especially in the blood plasma; the phosphate of iron in the red blood corpuscles; the phosphate of magnesia in the muscles, and the phosphate of lime in the bones.

As a result of the metabolism in the tissues, physiologically or pathologically, a certain amount of phosphates are eliminated; in the omnivora and carnivora chiefly in the urine; in the herbivora slightly in the urine and more largely in the fæces.

A knowledge of the normal amount of phosphates present in the urine or a departure from this standard, either in excess or deficiency, is of considerable importance clinically in the diagnosis and prognosis of numerous diseases.

CYSTOTOMY (LITHOTOMY).

BY VETERINARY SURGEON A. CHINNIAH, COLOMBO, CEYLON.

History.—A black Waler gelding pony, about 14.2 high, eight years old, the property of W. W. Kenny, Esq., of Colombo, was brought to my surgery with the history that the animal passes highly blood-colored urine. It was treated by me for

some time with palliative drugs as in cases of ordinary hæmaturia; but when the case assumed an obstinate nature, I suspected that there must be some mechanical agent, such as a calculus, doing the mischief as the symptoms suggested. The animal was examined per rectum and the presence of the calculus was diagnosed with certainty.

Symptoms.—There was painful straining during micturation, but at times the urine passed was of normal color and consistency. After brisk exercise the urine passed contained blood corpuscles and pigments in abundance, and the expression of the patient during the passing of urine indicated great pain. The appetite was all throughout good and there was no noticeable rise of temperature. As soon as the proper diagnosis was arrived at I informed the owner that the animal must stand an operation which, if it succeeded, was the only means of saving the animal.

Modus Operandi.—The instruments taken for the operation were scalpels, sharp-pointed bistoury, Symes' artery forceps, bull-dog forceps, stone forceps, Gullion's lithotritor, male catheter and the female washing catheter.

The animal was thrown on the near side and a general anæsthetic (chloroform) was administered. The penis was pulled out, washed and lubricated, and the catheter was passed and the penis retained all throughout in this position by an assistant told off for the work. The off hind leg was drawn a bit in front. I took my position just near the croup. The tail was washed antiseptically and given in charge of another assistant to be kept in the desired position. An incision was made two inches below the rectum along the middle line of the perineum downwards. When the urethra was reached, the sharp point of the bistoury was introduced into the tube (urethra), which was eventually slit open to admit the passage of the forceps. When the forceps were in the bladder the stone was grasped, with the assistance of my left arm, in the rectum. Several attempts were now made to remove the stone without performing cystotomy or lithotrity; but they proved futile.

Though the lithotritor was at hand ready for use I preferred to perform cystotomy. The bistoury was passed along the urethra into the mouth of the bladder, and guided by my left hand per rectum to prevent a rectal fistula, an incision was made dividing the mouth of the bladder, prostate glands and (unavoidably) the pudic artery. The latter was promptly caught and ligatured. This made the operation simple, and with the help of the hand, per rectum, the removal of the calculus was easy enough.

The calculus weighs $3\frac{3}{8}$ ounces and its circumference $7\frac{1}{4}$ inches. It is not spherical, but convex on both surfaces, and the margin unbroken and round. The outer layer is apparently composed of phosphate of lime and the inner of oxalate of lime.

After Treatment.—The bladder was washed with a tepid solution of boracic acid. The wound was antiseptically treated and painted with iodoform and eucalyptus oil and left open. The animal micturated soon after the operation, and passed urine both through the wound and along the natural passage. The passage through the wound ceased after the first day of the operation—January 27, 1901. The wound is being daily dressed antiseptically with what I call an antiseptic emulsion composed of boracic acid, carbolic acid, iodoform, eucalyptus oil and glycerine, and satisfactory progress continues to be made. The wound is 2 inches in length and a quarter inch deep now.

OPERATION FOR IMPERVIOUS URACHUS.

BY DR. J. H. GAIN, SEWARD, NEBRASKA.

Read before the Iowa and Nebraska Veterinary Medical Association at Omaha,
Nov. 20, 1900.

Until the later treatment for parturient apoplexy the country practitioner usually had a chill when the symptoms of this trouble were described along with a request for help, and somewhat the same feeling comes over him when a stock owner comes in and says that his young colt is unable to stand, passes urine

in considerable quantities through the navel, hocks badly swollen, saying the old mare stepped on them.

During the past spring and summer we had a great number. A few that had only a slight discharge from the navel, with no other symptoms, recovered both with and without treatment.

In the more severe cases, having tried various injections, together with tying off the urachus and losing all of them, the following operation was suggested and performed by Dr. Anderson :

The patient having been kept from dam for six hours was laid down and tied so as to leave the abdomen freely exposed. An anæsthetic was then administered, the abdomen thoroughly washed with soap and water, and the hair shaved from a space four inches long by eight wide, with the navel as the centre. An elliptical-shaped incision five inches long and just wide enough to take in the navel was then made through the skin, underlying tissues and peritoneum. The umbilical vein was traced ahead until found to be healthy, ligated with silk worm gut and severed. The urachus was then followed up to bladder and two strands of the silk worm gut passed between the branches and each ligated separately, a strand being then passed around and over both ligatures. The urachus was then severed about a half inch below the ligature, the peritoneum was closed with an uninterrupted suture, the ends being left long enough to hang outside. The skin was closed by an ordinary interrupted suture, directions being given to pull out the inner suture the third day.

THE DEPARTMENT OF AGRICULTURE has decided to bear the entire expense of testing cattle with tuberculin in Great Britain which are to be sent to the United States for breeding purposes. Importers are directed to communicate with Dr. T. A. Geddes, care U. S. Consul, London, who represents the government in this matter.

IN the University of Nebraska appropriation bill Gov. Dietrich has vetoed items appropriating \$90,500 for the improvement of the property and equipment of the University and the Experiment Station.

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."

POST-MORTEM EXAMINATION OF A CRYPTORCHID BULLOCK— CONGENITAL MALFORMATIONS AND PATHOLOGICAL CONDITIONS.

By C. H. SWEETAPPLE, V. S., Professor of Cattle Pathology and Obstetrics, Ontario Veterinary College, Toronto, Canada.

"In life that vegetates, and life that moves, o'er all, disease her beauty withering wand waves high," and it cannot be doubted that in all "life that moves" congenital malformations may also exist as well as pathological changes.

The following case from notes of a post-mortem examination made for the Health Department of the city of Toronto, a few weeks ago, will I trust prove of interest.

A white steer, about three years old, had a masculine (stag-gish) appearance about the head, was in good condition and apparent good health. In consequence of having a tumor in the soft tissues in the region of the throat, the animal was held under the authority of the City Health Department, to be butchered under veterinary inspection.

The bullock was killed and the viscera removed by the butcher in the ordinary way. And on opening up the animal, it proved to be a cryptorchid, a small imperfectly developed testicle being found in the postero-inferior part of the abdominal cavity, attached to the spermatic cord. This, of course, accounted for the staggish appearance of the animal.

The liver was normal in size and form, but had two gall bladders closely united together. The butcher told me that he had occasionally noticed similar malformations in slaughtered animals.

On removing the stomach an abscess was found adjacent to the reticulum. It contained a quantity of pus, and a piece of steel wire, apparently about two inches of a knitting needle.

The tumor in the throat was about the size of a large orange. It consisted of dense fibrous tissue, in the centre of which was a cavity, containing a pus-like fluid; this cavity had several chambers communicating with each other. It was evidently tubercular.

On the serous coat of the rumen there were a number of

small tubercles, in the grey or early stage of development, also some in a similar stage on the parietal peritoneum.

In the greater part of the whole of the tissue of the lungs, were numerous tubercular nodules, varying in size from that of a marble to a walnut. These were in the caseous stage. There were no adhesions or tubercular nodules on either the visceral or parietal pleura.

And there was a tumor about as large as a duck's egg near the distal end of the fleshy portion of the gastrocnemii muscles—situated in the areolar tissue between the muscles—the muscular tissue itself was not involved. This was evidently tubercular—a greatly enlarged lymphatic gland.

Finding all these different conditions in one animal was certainly unusual and worth recording.

TORSION OF THE UTERUS.

By W. L. WEST, V. S., Belfast, Me.

April 10th, while attending the quarterly meeting of the Maine Veterinary Medical Association, I was called home by telephone to see a parturition case.

Found a three-year-old cow which had been in labor eight hours, without making any progress. Upon making an examination found the uterus twisted to the right, with the os dilated enough so that by following the direction of the curves the hand could be introduced into the uterus and the foetus examined, which was found to be in the vertebro-sacral position and correct anterior presentation. Gave the owner a very guarded prognosis and had about decided to perform a laparotomy and proceed as Dr. McCrank did, when it occurred to me that, while in college one of our professors told us that if the arm could be introduced into the uterus and the foetus grasped firmly, by having the cow rolled the opposite way the torsion might be relapsed or entirely reduced.

I must confess that this seemed to me at the time like a fairy tale, but as in any event it could do no harm and might be productive of some good, resolved to give it a trial. I put side lines on the cow and crossed the ropes over the back and drew the feet up snug to the abdomen and secured them there. Introduced the hand into the uterus and secured a good hold of the foetus by getting the forefinger and thumb into the eyes and other finger in the mouth; had attendants roll the cow to the left, and was agreeably surprised and disappointed to find the torsion completely reduced when the cow had been completely turned.

Removed the calf now without difficulty, irrigated uterus with creolin solution, removed remains of the placenta, gave the cow two ounces of whiskey, had her covered with a blanket and had the satisfaction of seeing her eating hay in less than thirty minutes. She made an uneventful recovery.

THE MOST BRUTAL WAY TO DOCK A HORSE.

By T. S. CHILDS, V. S., Saratoga Springs, N. Y.

I had a hurried call by a millionaire's coachman at 3 A. M., April 6th, to go and see three valuable horses that had been docked just one week before by a man who claimed to be a world-beater, as a docker, spayer, and castrator. It was in Ballston Spa, seven miles from Saratoga. On my way the coachman gave me this history: Last Friday, the boss had this man come to the stable to dock three horses; the *modus operandi* was as follows: First, he got several men from the boss's mill, and roped, cast and bound the animals one at a time, and had a good strong man take hold of the tail and pull it backwards as hard as possible, while he (the operator) took a common hand saw and sawed the tail off; let the horse up, and repeated the operation on the other two. The coachman remonstrated against the method, but this wise man of surgical science gave him to understand that he knew his business and that that was the latest up-to-date method. The coachman says the place was like a slaughter house that day, and the next day this wise man made his appearance, and as the blood showed evidences of not subsiding, he placed a cord on the tails, back about four inches from the end. It was put on so tight and left on so long that sloughing took place. After the animals had suffered in this way for four or five days they called the local veterinarian in, and, after he treated them three or four days, with no improvement, I was called. I gave them to understand that under the circumstances I should charge \$25 for my visit and advice, which was agreeable to them. On my arrival I think I can say without any hesitation that I saw three of the worst looking, rotten tails I ever saw. They were terribly swollen and the ends were as large as a man's double fist, suppurating and foetid. The temperatures were more than 105°F. in each case, animals distressed and off their feed. I prescribed and left the cases, with the understanding that the attending veterinarian would let me know how they came out, which he has not done up to this writing.

Well, some men are rogues and get praised for it, and some

try to be honest and are turned down at every corner. It is a question of luck, I guess; but none of us are always right. I think if a graduated veterinary surgeon was guilty of such a cruel and brutal piece of surgery he would be haled before the courts of justice forthwith. We as veterinarians are looking for protective laws. I say, enforce the laws we have, and from a humanitarian standpoint, stop such brutality in our State. The owner of the above-mentioned animals is one of the wealthiest and most influential men in Saratoga County.

THE SCHMIDT TREATMENT FOR MILK FEVER.

By WM. PETRIE, V. S., Wheeling, W. Va.

At my first opportunity to try it, I was without an instrument to administer the solution. The case was a very bad one and there was no hope by any other method; so, not wishing to let it pass, I took a common milk tube and placed it in a new "Omega" syringe, disinfected the instrument and a quart bottle with boiling water, then placed a glass funnel in the neck of the bottle and plugged the neck of the funnel with a pledget of absorbent cotton. I then put one dram of carbolic acid and two drams of iodide of potash in the funnel and poured in boiling water until the bottle was full. After cleansing the udder well and cooling the solution to about blood heat, I injected the solution into the udder directly from the bottle, about a fourth into each quarter. Three injections six hours apart brought relief, and complete recovery soon followed.

A LITTLE EXPERIENCE WITH TANNOPINE.

By WM. PETRIE, V. S., Wheeling, W. Va.

At the present time, when so many new medicines are being placed on the market, it is impossible to give each a trial. But when one does find something that is exceptionally good, it is only fair to say so, that others may profit by the experience. About a year ago the Fabenfabriken of Elberfeld Co. sent me a sample of tannopine and asked me to try it in diseases of animals, saying that it was recommended for diarrhœa. I tried it in horses, cattle and dogs, with most satisfactory results. In catarrhal diarrhœa it seems to be a specific. Two cases in horses, four in cattle and two in dogs, that were treated over six months ago, were perfectly cured, and others of more recent date seem to be all right. The only cases where tannopine failed to produce the desired results were found to be of a tuber-

cular nature ; these, of course, we know will yield only temporarily to any form of treatment.

DEPARTMENT OF SURGERY.

BY L. A. AND E. MERILLAT,
2127 Indiana Avenue, Chicago, Ill.

KERATOCENTESIS (*Concluded*).

Staphyloma is a name given to any bulging cornea or sclera of the eye, or the formation of tumors involving them ; the most common forms are :

1. Anterior (*keratoglobus*).
2. Posterior, a bulging of the sclera posteriorly.
3. Annular, which surrounds the ball either equatorially or partially.
4. Intercalated, found between the sclera and the iris.

Of these only one will be considered as an indication for paracentesis ; the other forms are generally due to neoformations, or other pathological lesions which are not treated in this manner. The first, the keratoglobus or anterior staphyloma (Fig. 47), when caused by intraocular pressure or dropsy of the anterior chamber, is often benefited by removing the pressure.

Staphylomata of the cornea may appear in various forms ; it may be *partial* or *complete*, racemose, conical or globose. They

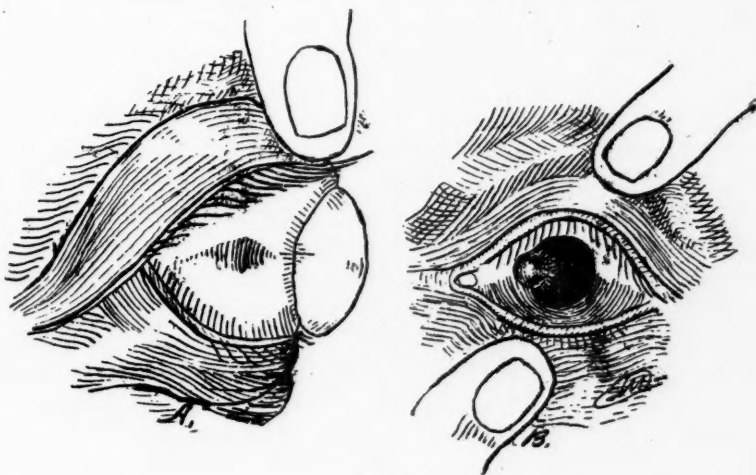


FIG. 47.

STAPHYLOMATA.

A, lateral view ; B, anterior view.

are *partial* when they involve only part of the cornea (Fig. 47-B); *complete*, when the entire cornea is bulged out anteriorly (Fig. 47-A); and *racemose*, when the cornea presents a number of protrusions that are sometimes linked together. Most all staphylomata are caused by increased intraocular pressure; and this pressure produces some pathological lesion in the structures of the cornea which allows it to become distended.

In a vertical section of the cornea five well developed layers are recognized, which we will name from without in :

1. Anterior epithelial layer.
2. Anterior limiting membrane.
3. Substantia propria (*proper substance*).
4. Posterior limiting membrane (*Descemet's*).
5. Endothelial layer.

1. The *anterior epithelial layer* is a continuation of the ectodermic portion of the conjunctiva, and consists of from six to eight layers of squamous cells; the deep layer of cell, however, may be considered low columnar, and rest upon the anterior limiting membrane which is the matrix of the epithelial layer (*basement membrane*). The epithelium is thickest near the periphery and thinnest at the centre.

2. The anterior limiting membrane, or Bowman's membrane, belongs neither to the elastic nor white fibrous connective tissue. It is well supplied with nerve fibres which enter the epithelium, which covers it; it is a highly developed basement membrane, which is thickest at the centre of the cornea, and is frequently invaded by superficial ulcers of the cornea.

3. The *substantia propria*, or *proper substance*, constitutes the bulk of the cornea and is composed of bundles of connective tissue fibrils held together by interfibrillar cement, and arranged into lamellæ. The connective tissue cells are located between the lamellæ in the corneal spaces. These corneal spaces are larger than the connective cells which affords a passage for the nutrient juices that supply the non-vascular cornea with nutrition. Between these spaces are communications (*canaliculi*), and between the fibrillæ, in the interfibrillar cement, is the location of the lymph spaces. When normal this layer is always transparent and any cloudiness or haziness of the cornea is generally due to some pathological lesion of this substance.

4. The *posterior limiting membrane*, or *membrane of Descemet*, is a well defined membrane, thickest at the periphery, and composed of very elastic tissue. It can be separated from the

proper substance, and is the membrane that protrudes when the superficial layers are lacerated or cut, either by traumatic injuries or accidental surgical wounds. The protrusion of this membrane through a superficial opening forms a hernia (*keratocoele*, sometimes called *Descemet's hernia*). This membrane may be considered the basement membrane of the serous coat of the anterior chamber of the eye; it is continuous with the basement membrane of the serous coat that lines the anterior part of the iris.

5. *Posterior endothelial layer* consists of a single layer of endothelial cells, differing from those of other serous membranes in the absence of stomata, which makes it impossible for the aqueous humor to enter the lymph radicles of the cornea.

This part of the serous membrane of the anterior and posterior chambers, contributes its mite toward producing the

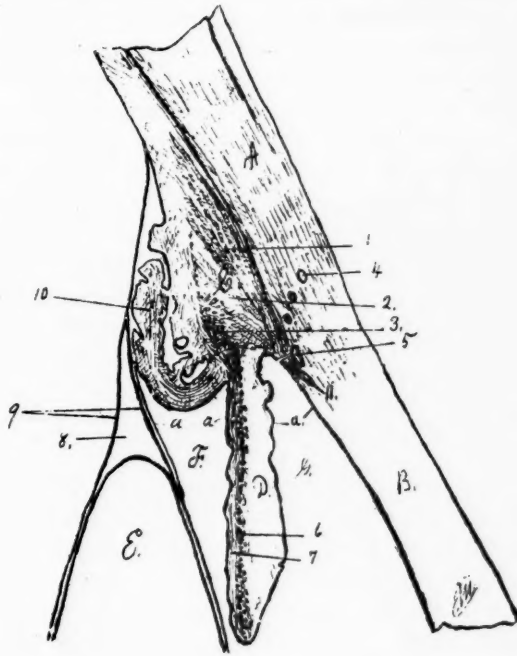


FIG. 48.

CILIARY REGION OF THE EYE.

A, sclera; B, cornea; C, ciliary muscle; D, iris; E, lens; F, posterior chamber; G, posterior chamber.

1, meridional fibres; 2, radiating fibres; 3, circular fibres; 4, anterior ciliary artery; 5, canal of Schlemm; 6, circular fibres of iris; 7, meridional fibres of iris; 8, canal of Petit; 9, suspensory ligaments of lens; 10, ciliary process; 11, spaces of Fontana.

aqueous humor, but this activity (secreting) of the membrane is more marked near the vascular periphery of both chambers; the part lining the ciliary processes produces the greatest quantity. The lymph vessels, which normally carry off the aqueous humor, are located in the spaces of Fontana, which communicate with the canal of Schlemm. (Fig. 48-5.)

The transparency of the cornea is maintained by the normal apposition of these layers, and a perfect physiological function of vessels carrying nutrition to it, and its absorbing system. Either of these conditions depend to a certain extent upon intraocular pressure; the position or relation of these structures can be changed by an abnormal pressure, and increased pressure may prevent the access of nutrient juices into the cornea, or interfere with the absorbing system (*lymphatics*); while a diminution of pressure may increase the amount of juices and allow the accumulation of lymph through a lack of tonicity, in lymph vessels, any deviation may cause disease of the cornea, impair the functional activity, its circulatory apparatus, or cause it to lose its transparency; besides these conditions resulting from interocular, the bulging of the cornea is the one to which paracentesis is most applicable, because the other conditions often are difficult to attribute to the real exciting cause, and it is not advisable to experiment much with the organ of vision of valuable animals.

Operation.—The operation is not a difficult one, but one that must be performed aseptically. The anterior chamber can be punctured with a probe, hollow needle, or small trocar. To empty the anterior chamber a probe is sufficient, although some oculists recommend the trocar for the removal of pus (*hypopyon*) from the chamber; it is also recommended for tapping posterior chamber.

Before operating the patient must be properly secured; with some patients a local anæsthetic will answer, but if it cannot be properly controlled, a general anæsthetic must be substituted. The eyelids can be separated with the fingers, but if the posterior chamber is to be tapped, they can be separated with an eye speculum. (Fig. 50-A). The eyeball is fixed with the thumb and forefinger of the left hand; the instrument (Fig 50-B. C.) is entered at the corneo-scleral margin, at right angle with the surface (Fig. 49-a) and as the instrument is inserted the direction is changed so that the iris and lens is not injured; the instrument is removed gradually, allowing the aqueous humor to escape slowly. If the contents of the chamber is

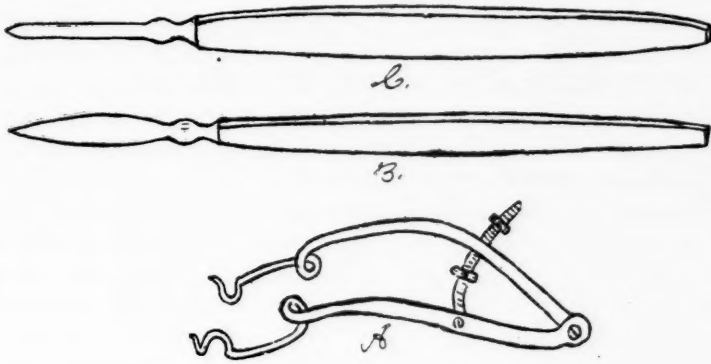


FIG. 50.

a, Eye speculum. *b* and *c*, Lance-knives.

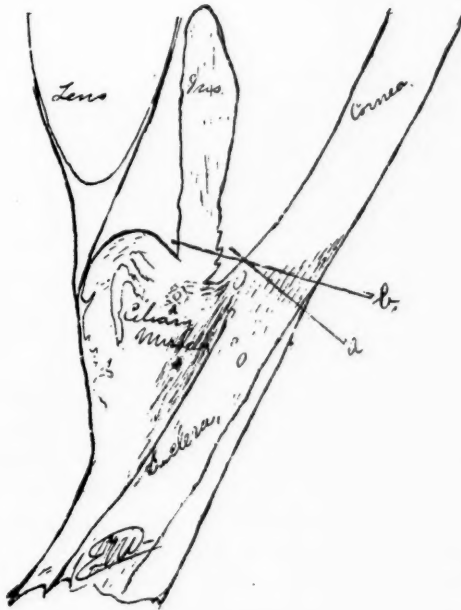


FIG. 49.

a, direction of trocar for puncturing anterior chamber. *b*, direction of trocar for posterior chamber.

forced out too rapidly the iris is frequently driven against the opening by the current, which sometimes makes it very difficult to remove all or the required amount of fluid. The eye should be carefully bandaged to exclude all light, without applying pressure upon the eyeball. The bandage should be allowed to remain on for three or four days. When necessary the operation can be repeated.

2. *Descemetitis* is an inflammation of the posterior part of the cornea. Such inflammation, however, seldom occurs without involving the entire serous membrane lining the anterior and posterior chambers. It usually begins with an acute inflammation, which eventually becomes chronic with a serous exudate (*dropsy*). The accumulation of fluid in the chambers may cause the cornea to bulge out by the increased pressure from within; or, some other complication resulting from intraocular pressure. Such cases are often benefited by paracentesis, repeated as often as necessary.

3. *Diseases of the Iris*.—The diseases of the iris that may be classed with the group that can be benefited by punctures, are all those not associated with plastic inflammation, such as:

1. Aplastic iritis.
2. Serous iritis.
3. Suppurative iritis.

1 and 2. Aplastic and serous iritis are almost identical; by some authorities there is only a little difference in the effusion, but the treatment is the same in all cases. The result of these diseases is the same as in chronic descemetitis.

3. *Suppurative Iritis*.—This is not a very common condition, but cases have been reported in which the exudate assumed a suppurative character from the beginning, which eventually is followed by the accumulation of pus (*hypopyon*) in the anterior chamber of the eye.

Treatment.—In all of these diseases no remedies are effectual as long as the intraocular pressure is not relieved or pus removed from the anterior and posterior chambers of the eye. The treatment which has given the best results is repeated paracentesis of the chambers, with such therapeutic agents indicated (*mydriatics* or *myotics*, *mild antiseptics*, *cooling lotions*, *etc.*). The general condition of the animal must be improved. Some of the cases will improve as soon as the pressure is removed, while others assume a chronic form and require months before the normal condition is restored. In all cases the eye must be kept at rest; the pupil dilated, but may occasionally

be contracted by myotics ; the eye must be protected from light by bandages or hood (Fig. 51) ; and if it becomes necessary to

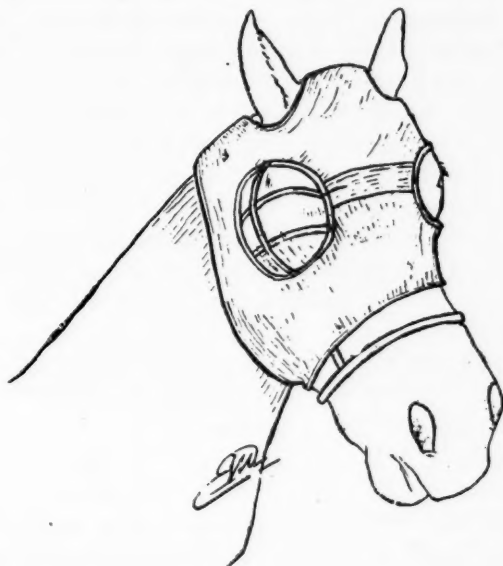


FIG. 51.

HOOD TO PROTECT THE EYE AND EXCLUDE THE LIGHT.

establish drainage this may be accomplished by sclerotomy.

4. *Parasites in the Anterior of the Eye.*—It is unnecessary to trace the life history of these parasites ; it suffices to know that they are worms and the larvæ of a parasite that gains entrance into the anterior chamber of the eye and floats in the aqueous humor. Its length varies from 1 to 5 cm. Its color is white in the early period of its existence, but changes in the course of time, with the nature of inflammation produced by its presence in the humor. These worms may exist in the anterior chamber for considerable time before causing any disturbance, but eventually they will produce an inflammation and the exudate will accumulate in the chamber and changes the consistency of the aqueous humor.

Treatment.—Paracentesis is the proper course to adopt in such instances. The cornea must be punctured and the worm forced out through the opening. The point selected for the puncture should be at the outer and upper sclero-corneal margin (Fig. 49-a). When the worm is removed, the eye is dressed carefully, and dressings allowed to remain in position for at least two or three days. The patient should be allowed to remain

in a dark stall until the anterior and posterior chambers are re-filled. If bandages cannot be adjusted so as to obviate pressure upon the eye, a hood (Fig. 50) should be used instead.

6. *Diseases of the Cornea.*—The structure of the cornea has already been mentioned, and also the diseases which may be benefited by paracentesis. Anatomically, the cornea may be considered a continuation of the conjunctiva, sclera and uveal tract. The conjunctiva is continued as the epithelial layer and anterior limiting membrane; the sclera, as the substantia propria; and, from the uveal tract, the posterior limiting membrane and the endothelium (*Descemet's membrane*). The pathological importance of this is apparent when we consider the part involved in each individual form of keratitis and non-inflammatory diseases of the cornea.

Diseases of the cornea can be studied chemically, either from their etiology or by tracing the anatomical divisions of the part affected. To properly treat disease of this kind both methods must be carefully considered, and more especially when they can be treated surgically; to puncture the cornea in all the diseases of cornea mentioned as indications, at all times, and under all conditions, would not be good treatment; in all these cases the operator must exercise good judgment and should never resort to such surgical interference simply because some one has treated a similar case in this manner, but should do so with an object in view.

(a) *Pannus* is a non-inflammatory vascular opacity of the cornea. It is sometimes confined to the superficial layers of the cornea (*pannus tenuis*), (which is a continuation of the conjunctiva and is often accompanied by trachoma, entropion or trichiasis, and usually results in a thickening of epithelial layer, and in most instances involves but a portion of the cornea, usually the upper; but when the substantia propria is involved (*pannus crassus*) the entire surface of the cornea may be thickened and dense. Either of these forms of *pannus* seldom run a course without ulceration or formation of new blood vessels by hypernutrition, which is usually caused by the inactivity of the absorbing system.

In the treatment of this condition, which is usually secondary, the first object in view is to remove the cause, and, next, to increase absorption. Some veterinarians have successfully treated these cases by evacuating the anterior chamber, while others have received but little benefit from the procedure. We therefore would advise the surgeon to be somewhat reluctant in re-

sorting to paracentesis for the treatment of pannus, and only adopt it when it is actually necessary to remove intraocular pressure.

(b) *Ulceration of cornea* is generally a sequel of suppurative keratitis. The varieties of corneal ulceration depend upon its association with other pathological lesions; its cause, course and location. The immediate cause of these ulcers is usually infected wounds, whether accidental or surgical. Anything that will destroy the epithelium, opens up an avenue for infection which may occur at the time of the injury or later. The supuration may yield to treatment early, or may continue for weeks without showing any tendency to heal. In old animals or patients that are out of condition, these ulcers are more serious than in young or healthy ones; in all cases the course and termination depends upon the ability of the tissues to resist the encroachment of septic organisms.

Treatment.—In all cases careful attention must be paid to the general condition of the patient; and, as it is generally an infectious disease, the treatment must be preventive and curative. All accidental wounds of the cornea must be treated as infected wounds. The seat of the injury or ulcer should be touched up with a strong solution of formalin (1:50), tincture of iodine, or nitrate of silver; some veterinarians recommend actual cautery. When the ulcers involve much of the surface of the cornea, the intraocular pressure sometimes causes a protrusion of the underlying structures (*staphyloma* or *keratocele*), and in such cases paracentesis is indicated. By relieving the pressure from within the danger of the cornea becoming ruptured is lessened. The method of puncturing the anterior chamber is the same as already described in the treatment of other diseases of the eye. Strict adherence to aseptic measures in every step is the most important feature of the operation. The puncture in these cases should be made at the superior sclero-corneal margin and within safe distance from the ulcers.

(d) *Superficial Keratitis.*—This disease is more common in young animals than in old ones. It may affect one or both eyes, may yield promptly to treatment, but reoccur from time to time and terminate in some more serious complication.

The disease is generally accompanied by pain and photophobia, which makes the patient close the eye tightly (*blepharospasm*); this may last for weeks, which often makes it almost impossible to examine the eye without forcibly separating the lids. The prognosis depends upon the severity of the

disease. It is essentially a recurrent disease, and repeated attacks usually terminate in corneal alterations.

(e) *Vesicular keratitis* is a disease that is not very common in lower animals. The vesicles contain a clear fluid which accumulates and ruptures, leaving superficial ulcers, and should receive the same attention as superficial keratitis or ulceration of the cornea. There is no doubt that the disease is due to a dyscrasia of some kind, and that the affection is mycotic.

(f) *Parenchymatous keratitis* is not so common in domestic animals as some of the other forms of corneal inflammations or diseases. The disease usually begins with a grayish opacity in the substance of the cornea, and gradually extends until it involves the entire corneal surface. The course of the disease is very slow and may extend to both eyes. It may run for months and eventually clear up, while some cases will terminate in ulceration or hypopyon. The disease itself is not an indication for paracentesis, but some of its sequelæ are ulceration of cornea and hypopyon may be benefited by such surgical interference.

Keratocoele and *periodical ophthalmia* have been successfully treated by paracentesis. Hernia of cornea, if relieved of the pressure from within, will heal very readily. Periodic ophthalmia (or *recurrent ophthalmia*) is a condition that is successfully treated by relieving the intraocular tension by paracentesis, with the administration of therapeutic agents indicated to improve the condition of the patient.

EXTRACTS FROM EXCHANGES.

GERMAN REVIEW.

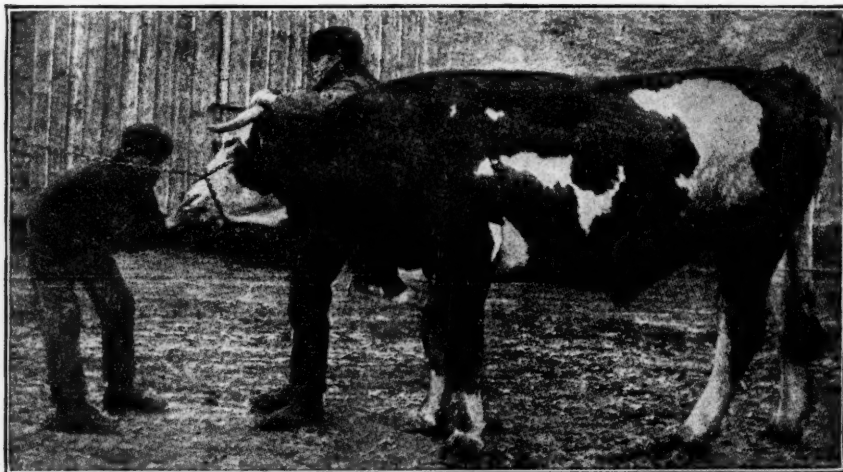
By ADOLPH EICHHORN, D.V.S., Bureau of Animal Industry, Milwaukee, Wis.

THE RESISTING POWER OF THE VIRUS OF RABIES AGAINST DECOMPOSITION [*Prof. S. von Ratz, Budapest*].—Hartwig observed that inoculations with the saliva of rabid dogs, after a lapse of 24 hours, became non-effective, and that the virus of rabies, in decomposition, loses virulency very soon, while Pasteur proved that in advanced decomposition the virus retains virulence for four to five days. Mergel, on the other hand, inoculated the decomposed brain of fourteen days standing, of a wolf, with success, and similar were the results of Galtice. Russo-Travali and Brancolcone also studied and observed carefully this question, and found that in decomposing cadavers

buried for thirty-eight days, the virulency of the contagion of rabies was preserved, while in cadavers in the open air, this could only be proved for twenty-one days. Ratz employed for examination the brains of two dogs, which were buried for twelve and three weeks, respectively. From the completely decomposed brain of the emulsion, some was injected subdurally, and some intramuscularly; both inoculations were without any effect. Ratz then directed his experiments in the way in which he infected the test animals with the street virus, and after their death from marked rabies, they were buried. In different intervals, subdural and intramuscular injections were made into rabbits. This experiment led to the following results: Inoculations with brain which was buried from fourteen to twenty-four days, produced by either subdural or intramuscular inoculations, characteristic rabies on the test animals; most certainly this virus was weakened. While using the fresh brain, the animals developed the symptoms of rabies after fifteen to sixteen days, and died two to four days after; so by employing the decomposed brain, the time of incubation was lengthened, fluctuating from eighteen to twenty-nine days, and death only occurred after twenty to thirty-one days from the time of injection.—(*Veterinarius*.)

TO THE AUSCULTATION OF THE LUNGS IN CATTLE [*Dr. Ellinger*].—It is recognized as a fact, that the strength and rapidity of respiration has a great influence on the intensity of the normal and pathological respiratory sounds. The human practitioners, therefore, when auscultating the lungs, order the patient to take deep inspirations, but there is no advantage in allowing an exertable and rapid respiration. But often one hears best by a slightly deepened respiration. In our domesticated animals, we have but slight power to change their respiration. The veterinary practitioner having this in view, is advised to have the animal exercised before examination. As a result of the quick or slow movement, not only an increase in the number of respirations is obtained, but frequently coughing will result with expectoration. So Röder succeeded in obtaining expectoration, in which he proved the presence of the tubercle bacilli from a cow, by trotting her several times up and down the yard. But, besides, by this method, the respiratory sounds are more intense and easier to hear. Röder advises as a practical method the following procedure: After observing the animal in the stable, it is exercised and brought back. During the auscultation of the lungs, the nostrils are covered

with a linen cloth, in order to compel the animal to perform forcible inspirations and expirations. "By this method, we not only hear more pronounced the abnormal respiratory sounds, if they are present, but also areas of consolidation in the lungs are easier detected by percussion." The author also confirms this statement. Röder prefers to make the examinations in the open air, rather than in the stable. Ellinger claims that his experience has taught him a more practical way in this procedure. And as nothing is mentioned about it in the text-books of clinical examining methods, as it is also unknown to most young practitioners, the author describes his procedure in the following



way, accompanied by an illustration: For examinations by this method, two assistants are required. One of them takes the place to the right side of the animal, which is tied, and takes hold of the two horns. The other assistant takes hold of the lower jaw, with both hands, in such a way that all the fingers of both hands, with the exception of the thumb, are arranged so that they span the lower jaw, while the thumb of each hand is placed on the nostrils, which are then closed and opened, according to the desire of the examiner. By this method the examination can be extended as long as necessary, and the respiration can be interrupted for longer or shorter periods. Examination, therefore, can be made very accurate. This procedure is particularly suitable for testing caverns, tumors, consolidation of tissue in the lungs, adhesions of the pulmonary pleura with the costal pleura, which very frequently exist in

tuberculosis. In examining the lungs by this method at the height of inspiration, the abnormal lung sounds become distinctly audible. And, further, by this method, in abnormal conditions, cough is most likely produced; therefore, by applying it, with a careful examination, a positive decision can be made.—(*Berliner Thierarzt. Wochensch.*)

ADENO-CARCINOMA IN THE COLON OF A HORSE [*Ehlers*].—The horse frequently suffered from attacks of colic, and besides when free from pain was not as spirited as before. A disturbance in the action of the heart was also noticeable, by a wheezing sound, which was heard instead of the first sound of the heart. The horse was sold to the butcher. On autopsy a tumor the size of a head was detected in the colon, about ten inches from the cæcal opening. At the location of the tumor the colon was firmly grown to the cæcum. The lumen of the colon 15 cm. long was so much constricted that only two fingers could be introduced. On opening the colon abscesses from the size of a hazelnut to an apple were protruding, the surface of which was of a dirty grayish appearance, with a strong decomposing odor. The consistence of these abscesses varied from soft to the hardness of bone, so that when passing the hand over them, it gave a similar sensation to pumice. The weight of the new formation, together with the intestinal wall belonging to it, was 2600 gm. The microscopic examination proved a cylindrical epithelial carcinoma. In the heart a rough appearance of the mitralis valve was noticeable, the free border of which contained many hard nodules, from the size of one to two pinheads.—(*Zeitschr. f. Vet.*)

PENETRATING ABDOMINAL WOUNDS, WITH PROLAPSUS OF PART OF THE INTESTINES [*Tennert and Weinhold*].—Both authors report a case, each of a successful recovery, from an abdominal wound with prolapsus of part of the intestines. Tennert saw a ten-year-old gelding with a wound to the right of the linea alba and about a hand from the cartilaginous prolongation of the sternum, from which part of the intestines protruded to the size of a fist. The prolapsed portion was very much distended, so that puncturation was resorted to, but without any success. The horse was then cast, by which the intestines were covered with dirt. After a careful cleansing with lysol water, and enlarging the wound, the prolapsed portion was replaced, and the abdominal wound closed with catgut sutures in such a way that the edges did not come close together, but leaving a split half a cm. wide. The internal suture was then covered with

a layer of sublimate cotton, and the skin sutured with disinfectant silk. After treatment consisted in frequent washing with a lysol solution. On the sixth day the stitches of the skin and the tampon were removed, and the wound healed smoothly without discharging. Weinhold found in a 17-year-old horse, on the left side, between the coxo-femoral and femoro-tibial articulation a soft swelling the size of a head, having on its summit a wound $1\frac{1}{2}$ cm. long. The exploring finger proved the presence of intestines, which prolapsed through a 15-17 cm. long rupture of the intestinal wall. The animal was placed on his back; in the direction of the rupture a 20 cm. long incision was made, the intestines replaced and the ruptured wound closed with silk, and powdered with tannoform. The skin after the insertion of a drain tube was also sutured and powdered with tannoform. The horse received 1.0 gm. morphine hydrochl. subcutaneously. After treatment consisted in washing with lysol water. Drain-tube and sutures were removed after four days. The wound left a 10 cm. long narrow fistula, which discharged; the horse was cast, the fistula opened, and a slough the size of a dollar was removed. Following this the wound healed very nicely.—(*Zeitschr. f. Vet.*)

A NEW COLORED PRODUCTION OF THE SO-CALLED CAPSULES OF THE ANTHRAX BACILLI [*Wolf Raebiger*].—In his procedure of producing the so-called capsules of anthrax bacilli, Raebiger avoids the fixation of the cover glass preparate by heat, and attains the same by treating it with formalin (40 per cent. watery solution of formaldehyde). With this at the same time he connects the staining by dissolving anilin dye in formalin. To prepare the dye, formalin is poured, for instance, on gentian violet powder (15 gm. dye to 100 parts formalin), stirred, and left standing for several hours. The dye is good when all the powder is dissolved. This is then filtrated and preserved in a pipette bottle. The finely spread and thoroughly air-dried cover-glass preparate is then dotted with the formalin stain, which after 20 seconds, is rinsed off with water. In the examination, all the corpuscular bodies of the preparate will appear fuller and stronger, as a shrinking does not take place and the anthrax bacilli will show the true capsules. The latter are pale, and are contoured sharply on their periphery by a thick blue line, while the single right angular bacterial cells are separated by pale separating walls. The resulting pictures resemble those of the Johne's procedure. However, the single bacilli appear stronger, and each will show with a certainty the

capsule, contrary to the cadaver bacilli. The capsules are very wide, and the shrinking is so small that when moving the micrometer screw frequently the cylindrical form of Gallerst capsule can be observed. The white dots in the bacterial cells, observed by Klett and Olt, R. could see in 50 to 70 per cent. of the bacilli examined. The disinfection of the prepareate with the formalin method, as proved by R., is a complete one.—(*Ztschr. f. Fleisch. u. Milchhyg.*)

ITALIAN REVIEW.

By PROF. A. LIAUTARD, M.D., V.M.

A CASE OF PERMANENT CRAMP IN THE HORSE—BASSI'S OPERATION—RECOVERY [*By Edoardo Gamba*].—Towards the end of January the author was called to examine a horse which had a pseudo-dislocation of the patella of the right leg. There was no history except that he was found in that condition, and that all efforts to move him were every time accompanied by danger of falling. The diagnosis was easily made, and, although the patella could readily be replaced, the difficulty would return immediately—the condition of the internal and median patella ligaments being readily made out. Ordinary modes of treatment were applied without results; irritating frictions had only for effects to cause much irritation. As a last resort it was decided to operate by Prof. Bassi's method, viz.: Section of the internal patellar ligament. The operation was simple. The animal properly secured, the skin shaved and rendered aseptic, a small incision was made through it and a tenotomy knife introduced into the wound, between the skin and the ligament, and this being divided, the wound was dressed with carbolized oil. The animal was allowed to get up and moved away without any trouble. After a few days of rest he was returned to his work. This simple operation of Prof. Bassi has given him several successes, which were also obtained at the hands of Falletti, Varketta, Cadiot, Manquet, and others. Performed also quite frequently in bovines, where the trouble is quite common, it has always been successful.—(*Il Moderno Zooiatio*.)

HYPODERMIC INJECTION OF SOLUTION OF CHLORIDE OF SODIUM IN THE TREATMENT OF RHEUMATISM OF THE SHOULDER IN THE HORSE [*By Dr. Umberto de Mia*].—The author records his experience in four cases of lameness of the shoulder, due to rheumatism. In one case, of more than one year's

standing, he first resorted to injection of bromidate of arecoline and afterwards to the use of atropine and morphine mixed; but, these being followed with no result, he decided to resort to injections of solution of salt at 7% heated to 40° C. Eight injections were made various days apart. From the first injection a marked improvement was noticed, and after the second the animal travelled sound for a short distance. The recovery was completed after a few days. In a second case, the lameness was first treated by frictions of spirits of camphor and then followed by the use of a similar solution of salt. In the beginning the first three injections were without results; the three following gave a marked improvement and four more brought about a complete recovery. In the third case, an injection of atropine and morphine was first resorted to, as there was great pain in the shoulder; when that had subsided salt was injected and its use was followed by complete recovery also. There remained, however, a certain stiffness, which was relieved after five days by atropine and morphine. The fourth case was very similar to the preceding, and was followed by the same results and stiffness; but ultimately recovered entirely.—(*Il Nuovo Ercolani.*)

AN ENZOÖTY OF SAND DISEASE IN BUFFALO CALVES [*By Prof. G. Marcone*].—A breeder who kept his young calves in a pasture near Caperna, through which the Volturno river passes, noticed that many were dying; he had lost 31 out of 85, and thought that perhaps anthrax was the cause of death. One of the sick buffaloes was sent to the clinic of the Veterinary College of Naples, where he exhibited the following symptoms: The animal was eight months old, thin in condition, weak, and moved slowly; temperature 37.8° C.; pulse slow and thready; respiration slow, and accompanied now and then by groans; there was no appetite, no rumination. The conjunctivæ were injected, the nose dry, mouth cold, thick saliva running from it; thoracic organs apparently sound; abdomen somewhat painful, with flabby walls. The hand introduced in the rectum drew dry fæces, gray, heavy and sandy in appearance. The calf died the next day after his admission to the hospital. At the post-mortem all the organs were found healthy, but in each cavity of the stomach, the intestines as far back as the rectum, quite a large quantity of a gray, heavy substance was found, which, gathered together, formed quite a large mass. The mucous membrane of the intestines was cyanotic in its whole extent. The contents of the digestive tract proved to be composed of

sand. The owner then remembered that previous to the appearance of the mortality in his herd, the Volturmo had overflowed the field where the animals had been sent to pasture after it had withdrawn, leaving over the grass a certain amount of sand. The buffaloes kept on grazing and ate grass as well as sand, and the result was the enzoöty, due to the presence of this foreign body, and not to anthrax, as it was supposed. The animals were removed from that mortal field and the trouble disappeared.—(*Riforma Veterinaria*.)

ENGLISH REVIEW.

By PROF. A. LIAUTARD, M.D., V.M.

THROMBOSIS OF THE ILIAC AND FEMORAL ARTERIES—COMPLICATIONS [*By W. Robb, F.R.C.V.S.*].—Although this patient had been able to work for ten hours in good shape, he suddenly exhibited great pain, and after going about half a mile, he fell right on his side. When the author saw him he was lying flat, breathing very quickly and showing no great pain. Forced to stand up, he only did so for a few seconds, and then without warning, threw himself down in the most violent manner. Sedatives and mustard applied to the abdomen made him spring to his feet, but in a few seconds he threw himself down again, without consideration as to whether he would hurt himself or not. Was it enteritis? Was it azoturia? Later on, observing a peculiar condition of the pulse, 20 in a minute, suspicion was aroused as to the true nature of the trouble, and rectal examination made, and, although the animal strained very severely, the condition of the posterior aorta was made out. The beatings there were also 20, but quite exaggerated in type, the vibration of the walls of this blood vessel being so marked that they could only be compared to the effect sometimes produced on water pipes by one turning off the water quickly. The pulse was readily felt on the right side on the iliac, but not on the left. The horse died shortly afterward. The principal lesions were found in the iliac arteries. Right iliac was normal. In the left there was found yellow clots as far down as where it becomes femoral, which in its centre contained a large black clot with a yellow centre. Below it the femoral was found empty. The abdominal organs were more or less congested.—(*Journ. of Comp. Path. and Therap.*)

REPEATED ATTACKS OF COLIC FROM INTESTINAL CALCULI

[By J. McKerlie, M. R. C. V. S.].—A horse, belonging to a miller, showed colicky symptoms, which were relieved by ordinary treatment. The pains had then lasted some four days, and during that time nothing passed per rectum. At the end of that time the bowels would act, the appetite improve, and everything went on well for a month or two. Then the trouble would return. The pains being at times very violent; at others they only made the horse uneasy. His favorite position, when suffering slightly, was to stand stretched to his utmost, with his chin resting on the wall in front of him, as far back as he could reach. When down he got on his back, and seemed easy in that position. Very often the bowels did not act for a week and often the pulse would run down and be quite imperceptible. At last, he was found one morning dead in his stall. At the post-mortem was found a rupture about two feet long in the large colon. The bowel was very thin. Floating in the cavity there were found two calculi, which had escaped through the rupture. They weighed together about 16 pounds. Lots of smaller ones were also detected, which collectively weighed 10 pounds.—(*Journ. of Comp. Path. and Therap.*)

RECURRENT FIBROID TUMORS IN A BITCH [By The Doctor Sahib].—Under this heading the author records the case of a three-year-old bitch, which for some three weeks had become a nuisance in the house owing to constant dripping of urine. When examined, the vagina and inner sides of the labiæ were found affected with a profuse growth of tumor, firm in consistency and somewhat of cauliflower appearance. These were extracted and after local treatment she was discharged cured in fourteen days. Eleven months after the dog was returned to the doctor for a tumor outside the left thigh, subcutaneous, adherent to the structures underneath, and about as big as a small orange. Observed some four months previous, it had gradually increased, and for a week had given rise to evident lameness. The tumor was extracted, as well as some of the surrounding tissues, muscles, blood vessels, etc., and the animal once more recovered. Five months later she died from dystokia. Post-mortem showed no tumors in the region of the wound, no tumor on the thigh.—(*Veterin. Record.*)

RUPTURED BLADDER IN A PIG [By Wm. Collinson].—A pig is suspected to have broken its back. A few days previous he had a fit and other pigs in that same styte had been routing it about. When he wants to move he cannot use his hind legs. Put in a styte by himself he seems to mend in condition and eats

well, but he is always sitting as a dog with his hind legs thrown on the left side. The abdomen is much swollen, and when he is asked to move, he trails his hind legs behind. He looks otherwise healthy and bright. By advice of the author he was slaughtered. At the post-mortem the abdomen was found to contain five quarts of clear liquid smelling very strongly of escaped urine. The abdominal organs were healthy. The bladder presented a longitudinal rupture about four inches long. Its walls had their normal thickness; there was no stricture, nor growth in the vulva to cause retention.—(*Veterin. Record.*)

STOMACH STAGGERS WITH "PECULIAR SYMPTOMS" [*By D. C. Pallin*].—A mare which had a few days before suffered with colics was again taken in a much more serious manner. She had eaten all her bedding the night before. When seen, she was standing in a corner of her box, legs straddled, head hanging pendulous, eyelids swollen and congested, a portion of the tongue protruding, copious discharge of frothy saliva, giving her the appearance of a dog with dumb rabies. Body covered with sweat, extremities ice cold, tail held in erect position, marked tympany; temperature 102°, respiration 36, labored and jerky, pulse full (58), intermittent every sixth or seventh beat. There was also great stiffness, inability to move, especially the hind quarters. Rectum somewhat full. Attempts to raise the head seemed to cause great pain, and patient falls on her knees. Prehension and deglutition of food (liquid) was completely lost. What was the trouble? There were more or less marked symptoms of stomach staggers, impaction, internal rupture, tympany, clot causing pressure on nervous centres, tetanus, etc. Backraking and rectal injections were resorted to frequently. A freshly made soft bolus of aloes was administered, not without great difficulty and danger to the life of the author. Two hours later there was some improvement, yet an attempt to give a stimulant towards the evening gave rise to frantic paroxysms. She was left alone. The next morning she showed great improvement, most of the severe symptoms having subsided. At noon she took a little exercise. In the afternoon the physic acted very freely, and five days after the animal was returned to her work. The case was no doubt one of impaction, giving rise to stomach troubles with aggravated symptoms, which happily yielded to simple treatment.—(*Veterin. Record.*)

RUPTURED SPLEEN (*By Harry Lukes, M.R.C.V.S.*).—A 14-year-old gelding, weighing 1400 pounds, and very fat, was noticed slightly off during his morning work. He soon was found lying

down resting on his sternum, eating hay. Urged to get up, he did so, but was immediately attacked with severe asphyxia, fell down, rose again immediately, when he was again taken with asphyxia which, however, passed off quickly. He was pulseless, the beatings of the heart were very faint, the visible mucous membranes extremely pale. Death occurred in 25 minutes. Post-mortem: When the abdomen was opened the blood rushed out. The heart was enlarged, weighing $10\frac{1}{2}$ pounds, with fatty degeneration. The spleen was of enormous size, weighing $9\frac{3}{4}$ pounds, measuring $31\frac{1}{2}$ inches in length, $15\frac{3}{4}$ in width and from 2 to $4\frac{1}{2}$ in thickness. It presented a rupture 14 inches long and 3 inches wide. What was the cause of it?—(*Veterin. Record.*)

A VETERINARY JOURNEY TO SOUTH AFRICA.

LIFE ON A BRITISH TRANSPORT—ON THE ROCKS—STAMPEDE OF MULES WITH FEARFUL LOSS.

By HAL C. SIMPSON, D. V.S., Denison, Iowa.

After some preliminary correspondence relative to the trip, received telegram to come at once if I desired to go to South Africa and to report time of arrival. I telegraphed "There 10 A. M., Thursday, May 10." The operator got it 3.10 A. M., so that when I arrived in New Orleans the ship was loaded and they were waiting for me. Reported at ship to Prof. Owen Williams, who was the principal veterinary officer in America. He showed me around the ship, and gave me directions about as follows: Water at 6, then hay; water at 10, then hay; water at 1, then hay; water at 4, then mash; water at 7, then hay.

Give all the water they will drink every time, and each time a fair allowance of hay, except at seven, then all they want. Feed light the first few days. The mash was oats and bran, equal parts, thoroughly wet; every few days some magnesium sulphate in it; occasionally some potassium nitrate was added.

Was told I was to be in complete control of everything. I had 65 men—one muleteer at \$40, four foremen at \$30, the skinners (so called) getting \$15 for the trip. I picked out three men for my assistants, the rest were care-takers. Anything wrong was to be reported to the deck foreman, and he to report to me. I made about four rounds per day to see that everything was all right, besides being always subject to sick call. There was a steady night guard under a foreman, who were supposed to be

on the watch all night. Each deck foreman appointed day guard to stay below all the time.

The steamship *Corinthia* was a regular stock boat and was better fitted up than most boats in the charter of the government. Had 1452 mules on board divided on three decks, with feed in the hold. The mules were loaded about as follows: one row clear around the ship, heads towards centre; then two rows down centre, facing out, an alleyway about four feet wide between. They were in pens of from five to eight in a pen, all tied with ropes, which I was told had been steeped in aloes, to prevent their eating them. To my mind it seemed to stimulate the appetite so much that they ate rope tie-straps, then halters, finally the feed boxes on breast boards, and occasionally one another. The feed boxes were hung on the breast boards. Ventilation was from wind sails made of canvas, which helped some to get air to the lower decks, then the open ports helped a great deal on the middle deck. Wasn't expected to clean out at all; the result if that had been followed would have been scratches and thrush galore.

The first few days out in the Gulf of Mexico, there were a few seasick mules, with about the following symptoms: cold sweats, shivering, extremities chilled, retching, leaning up against the head or breast board until wind was shut off, then some mad struggling, which generally ended in the animal falling and being trampled upon by the others, unless they were speedily removed. Temperatures were rather high, pulse slow and weak, and respiration accelerated. Some were very uneasy; would often take a mouthful of hay, chew it a minute or so, and then stand and hold for some time; others wouldn't eat or drink at all. Some cases lasted for three or four days, others only a few hours. Treatment: always gave them plenty of room to lie down; if very uneasy, gave tinct. opii, later a physic. But as a rule, no treatment was needed. Had a number of cases of strangles; was unable to isolate them, and was told it was best not to, the theory being that the mules were likely to have it, and the sooner the better, in that way avoiding additional expense and having them ready for service when landed.

Everything was in good shape until May 15th, at 8.15 P. M. The night was frightfully dark, and it was raining harder than I had ever seen it rain before. We were steaming about thirteen knots per hour, when all of a sudden there was a very hard shock, followed by two of lesser force. I put on my

mackintosh and went on deck; was unable to see but a few feet. Went to the left, or port, side, and could hear the waves breaking on the rocks. In a short time lights appeared, and in the course of an hour it quit raining and cleared up a little and we were able to make out the shore about 150 feet away. In the meantime I had made several trips around the ship to see the condition of the mules; found all doing well. Increased the night guards, and had all port-holes closed, which made it extremely hot below decks. The engines began pumping the fresh water out of the tanks before 10 P. M., so that by morning nearly all tanks were empty. We left New Orleans with about 2200 tons of fresh water, they counting on a ton of water lasting a mule for a trip of 28 days, or about nine gallons per day. We were giving them all they wanted, five times daily. The second day after the wreck the water allowance was cut down to one gallon twice daily. About this time a few began to show signs of overheating; on the 19th one died; 20th, 3; 21st, 40; and then I lost count, but about 160 the 22d; the 23d, about 160 again, and probably twenty before we finished unloading, the 24th. The temperature averaged 101 for the twenty-four hours for five successive days. The only ventilation was from canvas windsails leading to the holds. The engines were going full speed most of the time, and there was no chance for fresh air to get below to the animals. We were so close to the shore, and the timber ran right down to the sea, and being between two points, we didn't get any breeze at all.

In the meantime there had been about 1600 tons of coal put overboard, and there were two ships trying to pull the steamer off, besides our own propeller going full speed astern. These two ships, one an English cruiser of 7000 horse power, the other a passenger ship of 3000 horse power, pulled the *Corinthia* over on the side somewhat, so that the deck's angle varied from 15 to 30 degrees. The result of this was that the mules on the upper side pushed their breast boards out, and fell in among those on the lower side, and when one would get down it was very hard to move the others so he could be gotten up. A number were trampled to death, a few had legs broken. In unloading, the mules were led up to the open cattle doors and pushed out; it was only a few feet to the water. If natives were there in canoes to lead them ashore, all right, if not, they often swam out to sea and were drowned, or else swam to one or the other of the vessels that were trying to tow us off, and were killed by the blades of the propellers. We were unload-

ing on the right, or starboard side, which was away from the land, so that they couldn't see land until they were out quite a way. A great many of those that swam ashore, unless they went to one special place, a sort of cove, were drowned; the breakers would lift them up and swing around until they were worn out. The shore was sharp rocks worn by the sea, and was about 10 feet high, with only an occasional place where they could get up. Among those that were landed, were some of the worst bruised up mules I ever expect to see; wounds of all sizes, shapes and descriptions; open joints, eyes knocked out, etc.

I probably should have mentioned the medicines on board the *Corinthia*, which were put aboard in England:

- 120 lbs. of mustard.
- 4 gals. tr. opii.
- 120 lbs. of potassium nitrate.
- 120 " " magnesium sulphate.
- 60 " " potassium chlorate.
- 40 gals. oleum lini.
- 10 " aromatic spts. ammonia.
- 10 " ammonia aqua.
- 10 " turpentine.
- 1 lb. of iodoform.

Some old out-of-date instruments, a few bandages, a pair of scales, and some absorbent cotton.

The mules, after being landed, were taken to Aux Cayes, a city of 8000 or 10,000, where they were let out among the farmers, in bunches of from 10 to 100, the sick and injured all in one place. A great many developed strangles after getting ashore, and a few pneumonia and purpura hæmorrhagica.

We stayed there a month, before loading on the S. S. *Montezuma*. We loaded 588 less than at New Orleans. After thirty-five days of good weather and fine results, we arrived at East London and unloaded. On the *Montezuma* every pen was cleaned out once a week and disinfectants used. Arrived there with a loss of six, two pneumonia, two purpura, one septicæmia, one general debility.

At East London the animals were unloaded into lighters and taken ashore. After getting ashore, were sent immediately to the front.

After I got ashore and reported, I was shown many courtesies by the officers in the army veterinary department. I made a brief stay in East London, and went from there to Capetown by rail.

The railroad accommodations in South Africa are far from good. Stayed in Capetown a few weeks, during which time I met three American veterinarians of my acquaintance.

Left Capetown for New Orleans on S. S. *Montcalm*, arriving at the latter place after a very pleasant trip. Had an opportunity to return to South Africa with another cargo of mules, but decided not to do so on same salary, of \$240 for the trip, unless the trip could be made in not to exceed seventy-five days, all time over that to be paid for extra, which arrangement I was unable to make, and returned home.

OBITUARY.

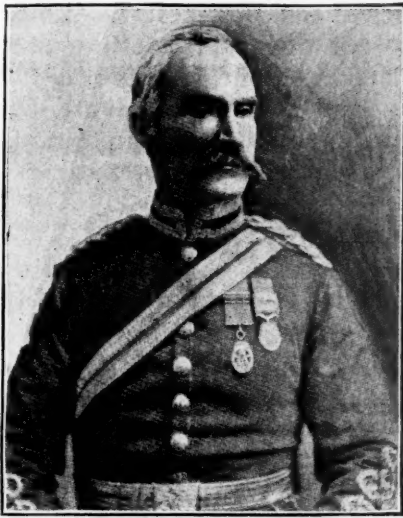
EMILE DECROIX—GEORGE FLEMING.

Veterinary medicine in Europe has had recently to mourn the deaths of two of its members, each of whom had occupied high positions in the armies of their respective countries and leave brilliant records behind them—the former as a humanitarian, the latter as a successful worker in behalf of his profession.

EMILE DECROIX, who passed through the various ranks of veterinary military service, became Principal Veterinarian and was decorated Officer of the Legion of Honor. When he retired from the service he devoted his whole attention to two favorite undertakings—the propagation of hippophagy and his campaign against the use of tobacco. To him is due the introduction of horse meat in France some years ago, and to-day is adopted in every European country, and has wrought so much good among the poor classes. Through his efforts also the creation of the society against the use of tobacco was accomplished, and it is now in a flourishing condition, its work being recognized by many as of the greatest benefit to mankind.

Emile Decroix has been president of several societies, and belongs to many organizations, scientific and benevolent. He was the author of numerous publications, and, although advanced in years, being 80 years old at the time of his death, he attended to the many callings imposed upon him by the great objects of his life. Active and robust to the day before he died so suddenly, his great joy was to attribute his good health to two considerations, which he often mentioned in a joking way—he ate horse flesh and never smoked.

GEORGE FLEMING, C.B., LL. D., F. R.C.V.S., etc., Principal Veterinary Surgeon of the English Army, died at his residence Higher Leigh, North Devon, on Saturday, April 13, 1901. He was born in Glasgow, March 11, 1833, studied veterinary medicine at Edinburgh, and obtained medals for chemistry, materia medica, anatomy, best examination, and gained the Fitzwygram prize for practical knowledge. Entering the army as veterinary surgeon in 1855, he was present at many important engagements, serving in China, Syria, Egypt, etc. He rose through the various positions to that of Principal



Veterinary Surgeon, to which he was appointed in 1883, being placed on the retired list on June 28, 1890. He was elected a Fellow of the Royal College of Veterinary Surgeons in 1877, received the LL. D. degree from Glasgow University in 1883, was five times President of the Royal College, and was a member of many other scientific and professional organizations. He contributed very largely to veterinary literature, the chief ones being: "Vivisection: Is it Necessary and Justifiable?" "Horse-shoes

and Horse-shoeing," "Animal Plagues," "Rabies and Hydrophobia," translation of Chauveau's work on "The Comparative Anatomy of the Domestic Animals," "A Manual of Veterinary Sanitary Science," "A Text-book of Veterinary Obstetrics," "Influence of Heredity and Contagion in the Propagation of Tuberculosis," "Operative Veterinary Surgery," "Parasites and Parasitical Diseases of the Domestic Animals," etc.

During the 30 years of his active professional life he was associated with the governing body of the profession of England, and it was largely through his efforts that the "Veterinary Surgeons Act of 1881" was enacted, which proved such a blow to empiricism in England. He was an active and an honorary member of many veterinary and scientific bodies in his country and throughout the world, being one of the first honorary members of the U. S. V. M. A. He was a genial, interesting and

amusing friend ; was ambitious and proud of his profession, and devoted much of his energy to its elevation. Those who knew him will long remember his personality and his affability, while his scientific work will remain alway. A. L.

CORRESPONDENCE.

AN ENGLISH READER SEEKS INFORMATION.

NEWMARKET, ENGLAND, April 24, 1901.

Editors American Veterinary Review:

DEAR SIRs:—Will some reader kindly send us through the REVIEW drawings and dimensions of the most practical kind of stocks for securing horses during operations? Something of the most up-to-date character. So many of our clients object to casting valuable horses these days and operating tables are somewhat expensive. Also does any one know the composition of Tweed's Liniment and Naviculine? VETERINARIAN.

SOCIETY MEETINGS.

THE OHIO VETERINARY MEDICAL ASSOCIATION convened for its eighteenth annual session at the Ohio State University, Jan. 16, 1901, with President Dr. S. D. Myers in the chair. Session called to order at 2.30 P. M., when Rev. W. O. Thompson, President of the University, was introduced, and delivered to us a cordial and kindly address of welcome, which was briefly responded to by Dr. W. H. Gribble. Roll-call showed the following veterinarians present: S. E. Bretz, Nevada, Ohio; O. V. Brumley, Columbus; J. C. Burneson, Wooster; J. H. Blattenburg, Lima; L. W. Carl, Columbus; T. Bent Cotton, Mt. Vernon; W. E. Clemons, Greenville; P. A. Dillahun, Springfield; E. W. Emery, Greenfield; W. C. Fair, Cleveland; J. E. Foster, Coshocton; Paul Fischer, Columbus; C. B. Frederick, Columbus; W. H. Gribble, Washington C. H.; R. C. Hill, West Alexandria; T. B. Hillock, Columbus; S. H. Kent, Cadiz; T. E. Jones, Newark; W. A. Labron, Xenia; C. E. Leist, Columbus; R. J. Michener, Lebanon; F. Miller, Fort Recovery; S. D. Myers, Wilmington; M. C. McClain, Jeromesville; E. L. Price, Circleville; Walter Shaw, Dayton; E. H. Shepard, Cleveland; S. S. Snyder, Dalton; G. R. Teeple, Napoleon; D. S. White, Columbus; W. B. Washburn, Tiffin, with the University veterinary students, John E. Bender, C. C. Hencock, G. E. Cook, T. O. Anders, L. H.

Merche, M. B. Lamb, O. C. Pettiford, C. H. Sater, H. N. Brown, C. L. Henderson, H. A. Forrester, Norton Dock, W. E. Severn.

Minutes of last annual session were read and adopted.

Dr. S. D. Myers, President, then delivered a short address as follows :

Gentlemen : To-day and to-morrow we complete the final strokes that forge for our organization the last link of the 19th century, and start the first link in the chain of the 20th century. What it shall be depends upon the individual work of every member of this society.

We trust this meeting will be harmonious and one long to be remembered for the good it shall accomplish in the awakening of an interest in our association; that shall mark the birth of a new era in the history of association work in the Buckeye State.

We are here this afternoon, fresh from our fields of labor, ripe in the experience of the past year, and it will be strange indeed if, after an interchange of these experiences and the discussion of vital subjects affecting us as veterinarians, we do not return to our homes better prepared for the work of the year and better able to cope with the problems that confront us.

The past year in veterinary circles has witnessed many important events, and the present activity in association work in this country has never been excelled.

The recent meeting of the American Veterinary Medical Association at Detroit was one of great good, and one long to be remembered by all of us that had the privilege of attending. Through the efforts of the American Veterinary Medical Association the army veterinarian has advanced to a stronger position than has ever been held before. We believe if the good work is kept up the United States Army will have a veterinary corps that will be a credit to the country.

We, as an association, have cause for congratulation at having the privilege of meeting at the Ohio State University, where a magnificent pathological exhibit can be viewed, also the University Museum of Natural History, the chemical laboratory, and other scientific exhibits, besides we have every facility for carrying out our clinical work.

As a result of numerous investigations our knowledge of certain classes of diseases is gradually becoming more precise and accurate, and the time has arrived when we may look forward to a system of medicine in which by preventive and curative inoculation we shall be able to grapple successfully with some of the deadliest forms of disease with which we have been helplessly and almost hopelessly contending.

Comparative pathology is receiving more attention in our colleges and universities, not only in this country, but in some foreign countries as well. This branch has been sadly neglected, and we are pleased to know that it is slowly but surely coming into prominence. It is a subject that interests the medical world at large.

Sanitation has also made great strides, but barriers are found here hindering progress. It has been found by experience that the people must first be educated to the needs of sanitation before proper laws can be enacted and enforced.

We are sorry to note the stand taken by one of our live-stock journals regarding the so-called "campaign against tuberculosis." The at-

tacks made on veterinarians and sanitary boards have either been made through ignorance, or a desire to become prominent through a series of misrepresentations. We ought now to be pleased that our profession has at last been recognized. So have for its members gentlemen who we believe are capable and fully qualified as meat and milk inspectors. I am sure you will agree with me when I say, we are at last placed in our right position. Stringent meat and milk inspection cannot possibly be carried out by any other than a qualified veterinarian.

And now my fellow practitioners, we trust this meeting shall be a congenial and profitable one, and if you will allow me, let me suggest that after the routine business of the meeting we consider and discuss the papers and communications that may be brought before us. Who is there among us that has not met complicated cases, and does not need the advice of fellow practitioners? These meetings are the very place to give and receive such information.

We do not want to be antagonistic to any work this association may have in hand, but we think for the good of the association, there is one subject we should let rest for the present. We refer to veterinary legislation. The discussion of this subject has taken up a greater part of the time of our meetings for several years, and what is the result? Surely we have gained nothing, but on the contrary we have lost.

What we want to do is to turn our efforts in another direction. We should endeavor to make these meetings so interesting and profitable that no veterinarian in the State can afford to miss them. Then we will be strong enough in numbers to have some influence.

Concluding, we, your officers for the past year, express our warmest appreciation for the help and support that has been accorded us on all sides. It is true some have been a little dilatory in the matter of answering correspondence, which makes the work a little burdensome, but we think it has not been for lack of interest.

You must now choose others from your ranks to bear the responsibilities we have striven to discharge, and when the new officers take the good ship by the helm, we hope that each and every one of you will lend a helping hand toward making this one of the strongest State organizations in the United States.

In conclusion let us ever be mindful of the one great object of such organizations as this, helping one another. There is room for us all, and only the honorable means of fair competition will end well and bring to us all that just reward which comes as the result of honest toil.

Secretary Dr. W. H. Gribble was then asked if he had any report to make, and responded with the following:

Mr. President and Gentlemen: At the last annual session of this association, a resolution was adopted that if the American Veterinary Association met in annual session in Detroit, Mich., that we, as an association, have no semi-annual session; but should, as individuals, all try to meet with the national body. As you all received invitations to a session it is proper that we offer an explanation. As soon as Detroit had been selected by the American Association, we began corresponding with the officers of the Michigan Veterinary Association and received from them an urgent request that we as an association meet in Detroit; and finally it was decided that so it should not seem as if we were forc-

ing ourselves upon the American Association, that we have a joint session of the Veterinary Associations of Michigan, Ontario and Ohio during the time of the meeting of the American. In theory this was very plausible, but practically was found impossible to carry out. The American Association cordially invited us to attend all their sessions, clinics and entertainment as if we were members of that body, and that took all of our time. In clinics Ohio held her own in speed of operating, as Dr. Torrence performed plantar neurectomy on one front limb (both sides) in the remarkable time of one minute and forty seconds, with openings in the skin not exceeding half inch in length; his instruments a knife and wooden meat skewer. While the dexterity and method of the operation was loudly applauded, and secured for the operator much praise, we must confess that his instruments gave rise to much severe criticism.

It may be out of place for us to criticise the methods of the American Association, but it does seem that some better arrangements as to time could be effected; as for instance, clinics called for 8 A. M. would not commence until 11 A. M., a time when papers were being read, so that one to see an operation must miss listening to some valuable essay, or hear the paper and miss the operation. We venture to say that if clinics called for 8 A. M. commenced at that time, irrespective of audience or *principal operator* and then adjourned at its specified time, you could guarantee everything on time the next day; but all in all you who were not present missed a treat, professionally, as well as socially, besides gaining confidence in your ability; for on leaving home with a full knowledge of your professional mistakes, and your seeming lack of skill, you see college professors commit errors in operations that you yourself would not be worse guilty of; you then return home restocked with confidence and consider yourself a full-fledged veterinarian once again.

The social entertainment (thanks to the Michigan Association) was on a scale unexpected and surprising; trolley rides, theatre parties, luncheons, and above all that visit to Parke, Davis & Co.; putting in hours walking through the different departments in the manufacture of their numberless medicinal preparations, including the visit to their biological laboratory (the largest in the world) where scores of horses and cattle, hundreds of guinea-pigs, pigeons and dogs are used in experimentation and manufacture of the various serums and antitoxins, used now in the diagnosis or treatment of such diseases as tetanus, diphtheria, tuberculosis, glanders, black leg, anthrax, Texas cattle fever, etc. At the close of this visit the firm entertained the association at luncheon, and from there, last but not least, we were escorted aboard steamer and given a ride of twenty-five miles up the lake, through the government canal to Star Island, there to sit down to an elaborate fish banquet and flowing oratory, at the close of which the meeting adjourned. A large number of ladies from Ohio were in attendance, who, one and all, were loud in their praises of their entertainment, especially the many kindnesses shown them by the wives and daughters of the veterinarians of Detroit, and I doubt if one of them failed to swear that she would never again, if in her power, fail to attend the annual meetings of the American Veterinary Medical Association.

Gentlemen, we meet to-day to celebrate the eighteenth anniversary

of this association, to again renew acquaintance with one another and participate in the pleasures and privileges which can always be found at the sessions of the Ohio Veterinary Association.

As your Secretary we cannot call your attention to the unprecedented prosperity of the association such as we are told abounds all over the country in other matters. This association was organized July 24, 1883, and was open to membership to graduates and non-graduates alike upon the recommendation of a board of censors; but in 1889 the non-graduates, no matter how practical, had lost all interest in the association (with the exception of Dr. W. G. Jones and J. B. Hillock, this latter now deceased), and allowed their membership to relapse from non-payment of dues. So that during that year (1889) an amendment to the by-laws was adopted, abolishing the board of censors and restricting further new membership to only graduates of legally incorporated veterinary or medical schools or colleges.

Our records show that since organization, to January 1, 1901, there have been 93 admitted to membership, of which only 35 remain in good standing, that is, owing two years or less of dues. Of these 22 are graduates of Ontario Veterinary College, 4 of the American Veterinary College, 4 of the Ohio Veterinary College, 2 of the Ohio State University, Veterinary Department, 1 from Montreal, 1 from Chicago, 1 from New York College and 1 non-graduate.

Of this great loss 7, J. B. Hillock, J. Charlesworth, G. W. Bowler, L. B. Chase, A. J. Smith, J. Yonkerman and J. C. Meyers, Sr., have been removed by death, one was expelled, eight have withdrawn and forty-two were suspended for non-payment of dues.

Of the twenty-five members who organized this association in 1883 eight are still loyal members. Of the thirteen who joined in 1884 only one, Dr. G. W. Butler, remains with us. Of the five who joined in 1885 all have withdrawn, been suspended, or expelled.

The great loss of 42 from non-payment of dues, cannot possibly be caused by our burdensome annual assessment of \$1. There must be other and greater reasons, either our association is not organized upon a basis acceptable to the great majority of veterinarians of this State, or else our sessions have not been of sufficient interest as to appeal to members to retain their membership. Neither of these reasons may be at fault, for sometimes we think the veterinarians of Ohio are different from those of other States as regards association, and especially is this true when your Secretary receives letters telling him how the association should be run, what it should do, etc., and invariably the writers are men who have never advanced one cent in the payment of expenses, and yet if the work they suggest was accomplished, they would share as well in the benefits as those who bore all the expense. If our by-laws are not as they should be, it is not a hard matter to correct them, and if our sessions are not interesting then who is to blame but the members. The President and Secretary may request, but they cannot compel, and there is not always the enthusiasm shown that insures success; especially is this so when trying to prepare a programme. There is not a member of this association but who is capable of doing something that will instruct, benefit, or add pleasure to these meetings, and yet fully 50 per cent. of those requested to assist, offer some sort of an excuse. This is not as it should be, for to accomplish all that such an organiza-

tion as this should, requires the individual and united efforts of us all.

There is no doubt but a great good could be accomplished to the profession as well as live-stock owners, by a large harmonious association such as Ohio with its well educated and large number of veterinarians ought to have. We sincerely hope that this session will be a successful one; its meeting place should attract some, the expectancy of clinics attract others, and we have written more letters endeavoring to obtain a good attendance than for any previous session; but more than this, at no time during the ten years we have been your Secretary has the President taken such a deep interest in the success of the meeting as Dr. S. D. Meyers, the present occupant of the chair. In conclusion, we thank you for many kindnesses, but would suggest to some, prompt replies to the Secretary's communications.

Next order of business was the nomination and election of officers, to serve for the coming year.

Dr. Sydney Myers was nominated for President, Dr. J. H. Blattenburg for First Vice President, Dr. W. A. Labron for Second Vice-President, Dr. E. H. Shepard for Third Vice-President, Dr. T. B. Hillock for Treasurer, and Dr. W. H. Gribble for Secretary. There being but one nominee for each respective office, the rules for ballot were suspended and the Secretary instructed to cast the vote of the association, thereupon the President declared each and every nominee duly elected.

A large amount of correspondence was read, none being of a really important nature, though some of it amusing.

Dr. T. Bent Cotton now read a really interesting essay on "Tuberculosis of the Horse," in which he took the ground that a sorrel horse was a diseased one, the color indicating in itself the existence of disease. This paper, as might be expected, aroused a storm of debate; but not being a stenographer we were unable to catch it; only that some denied the existence of tuberculosis at all in the horse, others that it did exist, and others, while they had never definitely diagnosed it in horses, they saw no reason why that animal should not suffer from the disease.

Adjourned until 7.30 P. M.

Evening Session.—Meeting called to order at 8 P. M.

Dr. E. H. Shepard, of Cleveland, gave us an interesting address on "Notes of City Practice," in which he exhibited several fine specimens, one large calculus and one a specimen of two large molar upper teeth and no lower ones.

Report of Committee on Contagious Diseases was read by its chairman, Prof. D. S. White. It was well discussed by almost every member present and accepted.

Report of Committee on Veterinary Progress was verbally given, and on motion accepted.

Dr. R. C. Hill read reports of cases.*

The chair appointed the following committee to audit the books of the Secretary and Treasurer and to report to-morrow morning: Drs. L. W. Carl, P. A. Dillahunt, R. J. Michener.

Dr. G. R. Teeple, of Napoleon, made application for membership, vouched for by Drs. Carl and Blattenburg, and under suspension of the rules was elected to membership.

The remainder of the evening was taken up in discussing the treatment of tetanus, some claiming good results from the carbolic acid treatment, while others found the treatment as severe as the disease, the hypodermic injections of the acid causing immense sloughing of tissue.

Just at this point the meeting adjourned because the electric lights went out (11 P. M.), to meet in the morning at the University Veterinary Hospital and conduct clinics.

January 17.—We convened as per adjournment, and as proof that clinics are successful was the number of members in attendance.

We failed to keep a record of the clinics, but remember 'Cunean Tenotomy,' by Dr. Hillock; "Spaying Bitch," by Dr. Blattenburg; "Firing for Spavin," by Dr. Frederick; "Intravenous Injection of Hydrate of Chloral to Produce Anæsthesia," by Dr. Brumley; "Peroneophalangeal Tenotomy," and "Median Neurectomy."

After the clinics we again convened. The Auditing Committee rendered the following report: "We, your committee appointed to audit the books of this association, find the accounts all correct, and that there is a balance in the treasury of \$279.44. R. J. MICHENER, P. A. DILLAHUNT, *Committee.*"

The chair appointed the following committees:

Veterinary Progress.—Drs. Walter Shaw, E. H. Shepard, O. V. Brumley.

Contagious Diseases.—Drs. D. S. White, S. H. Kent, R. J. Michener.

In reference to meeting place for semi-annual session it was decided to leave the selection to the officers of the association. Prof. White invited the association to meet again at the University at our next annual meeting, and suggested the appointment of a committee on clinics.

* Will be published in July REVIEW.

A vote of thanks was tendered the officials of the University, especially the veterinarians, for their kindnesses in assisting in making this session a success, after which the association adjourned.

WM. H. GRIBBLE, *Secretary*.

ALUMNI ASSOCIATION OF THE NEW YORK-AMERICAN VETERINARY COLLEGE.

A special meeting was held in the lecture room of the college building on Monday, April 1, 1901, at 4 P. M., with Dr. Fink in the chair. In the absence of the Secretary, Dr. F. R. Hanson was appointed Secretary *pro tem*.

The object of the meeting being to admit new members, after the reading of the Constitution and By-laws by the President the following new members were admitted: From the class of 1901—Drs. R. G. Bose, D. J. Johnson, J. L. Sterling, F. H. Werner, I. Wertheimer, F. S. Morris, W. C. Miller and C. J. Jones. From the Alumni Association of the American Veterinary College—Drs. L. H. Howard, H. N. Hall, R. W. Ellis, W. H. Hoskins, H. D. Hanson, F. R. Hanson, W. H. Lowe, J. P. Lowe, E. R. Ogden, T. E. Budd, Wm. Dougherty, W. J. Coates, J. F. Winchester, J. S. Buckley and E. C. Ross, From the Alumni Association of the New York College of Veterinary Surgeons—Drs. H. D. Gill, Amling, Wm. Anderson. C. E. Anderson and Wm. Fleischman.

The Secretary, Dr. Eichhorn, having received a Government position, sent in his resignation, which was accepted, Dr. F. R. Hanson being appointed in his place.

The President, Dr. Fink, appointed the following members to constitute the Board of Censors: Dr. H. D. Hanson (chairman), Drs. Wm. Anderson, R. W. Ellis, W. C. Miller and W. J. Coates. Meeting adjourned. F. R. HANSON, *Secretary*.

ALUMNI ASSOCIATION OF THE AMERICAN VETERINARY COLLEGE.

The regular meeting was held in the lecture room of the New York-American Veterinary College, Monday, April 1, 1901, at 2.30 P. M., with Dr. R. W. Ellis in the chair.

The following members answered roll-call: Drs. R. W. Ellis, H. D. Hanson, W. H. Lowe, J. P. Lowe, J. F. Winchester, L. H. Howard, W. H. Hoskins, E. A. Hogan, H. N. Hall, T. E. Budd, Wm. Dougherty, W. J. Coates, E. R. Ogden and F. R. Hanson.

Minutes of the previous meeting were read and approved. The Executive Committee reported that arrangements had been made for the dinner at Hotel Marlborough, and that the regular Alumni Prize would be given.

Resolutions upon the deaths of Drs. Chas. Burden and M. O'Connell were read.

The Treasurer's report was read and ordered audited.

Library Committee reported progress.

The following officers were re-elected :

President—Dr. R. W. Ellis.

First Vice-President—Dr. W. H. Lowe.

Second Vice-President—Dr. H. D. Hanson.

Secretary and Treasurer—Dr. F. R. Hanson.

There being no further business, meeting adjourned.

F. R. HANSON, *Secretary*.

AMERICAN VETERINARY MEDICAL ASSOCIATION.

The following have offered to contribute to the programme : Dr. W. C. Fair, Cleveland, O. ; Dr. Carl W. Gay, Syracuse, N. Y. ; Dr. G. R. White, Nashville, Tenn. ; Dr. Wm. McEachran, Windsor, Ont. ; Dr. D. P. Yonkerman, Kalamazoo, Mich. ; Dr. G. W. Dunphy, Quincy, Mich. ; Dr. R. S. Huidekoper, Washington, D. C. ; Dr. G. E. Nesom, Clemson College, S. C. ; Dr. V. A. Moore, Ithaca, N. Y. ; Dr. C. H. Higgins, Montreal, Can.

VETERINARY MEDICAL ASSOCIATION OF NEW JERSEY.

Secretary George W. Pope informs us that the next meeting of the above association will be held in Newark on July 11. The exact place of meeting had not yet been decided upon at the time of notification. It is hoped that there will be a large attendance.

NEWS AND ITEMS.

DR. A. W. MILLER, of Herington, Kansas, and Dr. L. A. Shaw, of Louisiana, Mo., have recently received appointments as inspectors in the Bureau of Animal Industry.

Dr. X. I. RICHMOND, of Kansas City, journeyed to New Orleans with Dr. H. G. Patterson, to take veterinary charge of a cargo of horses to South Africa.

THE COLORADO STATE BOARD OF AGRICULTURE have established a department of veterinary science, with Dr. George H. Glover, of Denver, at the head of it, at an annual salary of \$1500.

DR. EUGENE BIART, of Leavenworth, Kansas, has recently returned from Manila, P. I., where he had gone to serve the government as a veterinarian a year ago. The doctor reports a very pleasant and profitable experience.

DR. WM. HERBERT LOWE, reported as being dangerously ill with inflammatory rheumatism in the May REVIEW, is convalescing nicely, and has already resumed his enthusiastic work in behalf of the Atlantic City meeting of the A. V. M. A.

DR. ELISHU HANSHEW, of Brooklyn, N. Y., who was reported in the April REVIEW as being ill with capillary bronchitis, is, we are pleased to announce, so far recovered as to assume active control of his large practice.

DR. J. J. MILLAR has succeeded Dr. L. A. Merillat as Secretary of the Faculty of McKillip Veterinary College, Chicago. The former has entered into partnership with Prof. McKillip, and he will assume the chair of cattle pathology and obstetrics in addition to his other duties.

DR. H. G. PATTERSON, of St. Joseph, Mo., recently paid his friends in Kansas City and St. Joseph a short visit, returning to New Orleans to begin his fifth voyage to South Africa, May 23. These trips across the water seem to agree with the doctor, as he is adding considerably to his *avoirdupois*.

BACILLOL, the new germicide advertised elsewhere, is making rapid strides towards universal use among veterinarians. Under tests it has proven more destructive to germ life than any non-poisonous substance known, weak solutions killing them very quickly. Write the Bakterol Company, New Brighton, N. Y., for literature and all particulars.

DRS. L. A. MERILLAT AND J. M. WRIGHT, late of the McKillip practice in Chicago, have formed a partnership under the title of Wright & Merillat, and are engaged in the general practice of veterinary medicine at 2127 Indiana Avenue, Chicago.

DR. W. L. JOHNSON, of Brooklyn, N. Y., who recently made a trip from New Orleans to South Africa, returned in the early part of May, much improved in health, to regain which was his principal object in accepting the charge. He had flattering offers from the British Government to accompany the army to Egypt. He may again take a voyage to the Dark Continent under similar circumstances, as his first was one of much pleasure and profit.

THE NEW YORK LEGISLATURE has fixed the value of each cow condemned by the New York City Sanitary Board at \$22.50. At present the municipality owes for seven cows the Board ordered destroyed. Under the law city bonds are to be issued to pay such bills and hence the first bonds put out will aggregate \$157.50. Under the law again bids for such bonds must be advertised for and the expense consequent thereon will be about \$3000. The rate of interest is three per cent. New York's "cow-bonds" are regarded as financial curiosities.—(*Breeder's Gazette.*)

GLANDERS IN MAN.—In the report of the Massachusetts Cattle Commission (Dr. Austin Peters, chairman), issued January 1, 1901, the deaths of four people from glanders are given in detail, two of which were very sad. A mare died of obscure glanders of the lungs, and about that date the owner and his son became ill with a sickness which at first puzzled the physicians. The veterinarian who had treated the mare had diagnosed the trouble as bronchitis, but not being satisfied with his diagnosis, held a post-mortem and reported to the Commission that he believed the disease was glanders. When the owner and his son were taken ill, he suggested to the physicians in charge that they might have contracted the malady. This was found to be the case, the father dying of glanders two weeks later, the son ten day subsequently.

SYMPATHETIC LACTATION.—While incidents like the following are not uncommon in our annals, it is recorded here as an interesting circumstance, having occurred within the past few weeks in the practice of Dr. Bell, of the REVIEW: A mongrel bitch, three years old, gave birth to a litter of puppies more than a year ago, which were weaned at the usual time. Her mammary glands had thus been inactive for a year, and they were apparently dry. A new born pup was brought in to the house, and was being fed upon artificial food. It was observed that a strong attachment was manifested by the bitch for the new-comer, being jealous of any one who came near it. She permitted and encouraged the puppy to suckle from her dry breasts, and it was noticed that the little fellow's appetite for malted milk began to decrease, until he finally refused it altogether, at the same time gaining in flesh and animation. A closer investigation disclosed the fact that he was obtaining a full supply of good rich milk from his foster mother, which continues to flow in abundant quantity.

BUREAU OF ANIMAL INDUSTRY EXAMINATION.—The U. S.

Civil Service Commission announces that on June 18, 1901, an examination will be held in any city in the United States where postal free delivery has been established, for the position of meat inspector. During the past three years in addition to the regular semi-annual a number of special examinations have been held for this position, but the Commission has failed to secure a sufficient number of eligibles to meet the needs of the service, every person who has passed the examination having been offered an appointment. This examination offers a most excellent opportunity to secure employment in the Government service at a salary of from \$1200 to \$1400 per annum. The examination which was held on April 23, 1901, did not result in a sufficient number of eligibles to meet the present needs of the service. Applicants must be graduates of veterinary colleges. Those graduating prior to or during 1897 will be accepted if from colleges having a course of not less than two years in veterinary science, while applicants graduating since that time must be from colleges having a course of not less than three years. These facts must be shown in the application. Applications received from persons who are not such graduates will be disapproved. The examination will consist of the subjects mentioned below, which will be weighted as follows: (1) Spelling (second grade), 5; (2) arithmetic (second grade), 5; (3) letter writing (second grade), 5; (4) penmanship, 5; (5) copying from plain copy (second grade), 5; (6) veterinary anatomy and physiology, 10; (7) veterinary pathology, 25; (8) meat inspection, 40; total, 100. Information concerning the scope of the examination may be found in sections 36 and 60 of the Manual of Examinations revised to January 1, 1901. Age limit 20 years or over. From the eligibles resulting from this examination it is expected that certification will at once be made for the purpose of filling a number of existing vacancies in the position of meat inspector in the service of the Bureau of Animal Industry, Department of Agriculture, at different places throughout the United States, and to other similar vacancies as they may occur. This examination is open to all citizens of the United States who comply with the requirements and desire to enter the service. All such persons are invited to apply, and applicants will be examined, graded, and certified with entire impartiality, and wholly without regard to any consideration save their ability as shown by the grade attained in the examination. Preference in certification may be given to eligibles who are legal residents of the place or vicinity where the va-

THE NEW YORK LEGISLATURE has fixed the value of each cow condemned by the New York City Sanitary Board at \$22.50. At present the municipality owes for seven cows the Board ordered destroyed. Under the law city bonds are to be issued to pay such bills and hence the first bonds put out will aggregate \$157.50. Under the law again bids for such bonds must be advertised for and the expense consequent thereon will be about \$3000. The rate of interest is three per cent. New York's "cow-bonds" are regarded as financial curiosities.—(*Breeder's Gazette.*)

GLANDERS IN MAN.—In the report of the Massachusetts Cattle Commission (Dr. Austin Peters, chairman), issued January 1, 1901, the deaths of four people from glanders are given in detail, two of which were very sad. A mare died of obscure glanders of the lungs, and about that date the owner and his son became ill with a sickness which at first puzzled the physicians. The veterinarian who had treated the mare had diagnosed the trouble as bronchitis, but not being satisfied with his diagnosis, held a post-mortem and reported to the Commission that he believed the disease was glanders. When the owner and his son were taken ill, he suggested to the physicians in charge that they might have contracted the malady. This was found to be the case, the father dying of glanders two weeks later, the son ten day subsequently.

SYMPATHETIC LACTATION.—While incidents like the following are not uncommon in our annals, it is recorded here as an interesting circumstance, having occurred within the past few weeks in the practice of Dr. Bell, of the REVIEW: A mongrel bitch, three years old, gave birth to a litter of puppies more than a year ago, which were weaned at the usual time. Her mammary glands had thus been inactive for a year, and they were apparently dry. A new born pup was brought in to the house, and was being fed upon artificial food. It was observed that a strong attachment was manifested by the bitch for the new-comer, being jealous of any one who came near it. She permitted and encouraged the puppy to suckle from her dry breasts, and it was noticed that the little fellow's appetite for malted milk began to decrease, until he finally refused it altogether, at the same time gaining in flesh and animation. A closer investigation disclosed the fact that he was obtaining a full supply of good rich milk from his foster mother, which continues to flow in abundant quantity.

BUREAU OF ANIMAL INDUSTRY EXAMINATION.—The U. S.

Civil Service Commission announces that on June 18, 1901, an examination will be held in any city in the United States where postal free delivery has been established, for the position of meat inspector. During the past three years in addition to the regular semi-annual a number of special examinations have been held for this position, but the Commission has failed to secure a sufficient number of eligibles to meet the needs of the service, every person who has passed the examination having been offered an appointment. This examination offers a most excellent opportunity to secure employment in the Government service at a salary of from \$1200 to \$1400 per annum. The examination which was held on April 23, 1901, did not result in a sufficient number of eligibles to meet the present needs of the service. Applicants must be graduates of veterinary colleges. Those graduating prior to or during 1897 will be accepted if from colleges having a course of not less than two years in veterinary science, while applicants graduating since that time must be from colleges having a course of not less than three years. These facts must be shown in the application. Applications received from persons who are not such graduates will be disapproved. The examination will consist of the subjects mentioned below, which will be weighted as follows: (1) Spelling (second grade), 5; (2) arithmetic (second grade), 5; (3) letter writing (second grade), 5; (4) penmanship, 5; (5) copying from plain copy (second grade), 5; (6) veterinary anatomy and physiology, 10; (7) veterinary pathology, 25; (8) meat inspection, 40; total, 100. Information concerning the scope of the examination may be found in sections 36 and 60 of the Manual of Examinations revised to January 1, 1901. Age limit 20 years or over. From the eligibles resulting from this examination it is expected that certification will at once be made for the purpose of filling a number of existing vacancies in the position of meat inspector in the service of the Bureau of Animal Industry, Department of Agriculture, at different places throughout the United States, and to other similar vacancies as they may occur. This examination is open to all citizens of the United States who comply with the requirements and desire to enter the service. All such persons are invited to apply, and applicants will be examined, graded, and certified with entire impartiality, and wholly without regard to any consideration save their ability as shown by the grade attained in the examination. Preference in certification may be given to eligibles who are legal residents of the place or vicinity where the va-

cancy exists. Persons who desire to compete should at once apply to the U. S. Civil Service Commission, Washington, D. C., for application forms 304 and 375, which should be properly executed and promptly forwarded to the Commission. All persons who have been examined for this position during the past year and failed to pass will be allowed re-examination upon filing a new application. All persons who are unable to file their application prior to the date of the examination will be examined provided their request is received at this office in sufficient time to ship papers to the place of examination selected by them, conditional on the subsequent filing of their application in proper form showing them to be eligible.

WHAT REVIEW SUBSCRIBERS SAY.

I HAVE BEEN TAKING THE REVIEW for the last twelve years and I consider it one of the greatest additions to my library that I could have. I don't see how any veterinarian can get along without it."—*J. S. Culbert, V. S., Portland, Indiana.*

"THE AMERICAN VETERINARY REVIEW is one of my *Vade Mecums* on my desk in my study since 1886. Its arrival is always highly appreciated, and its contents read and carefully noted. My subscription for 15 years was a grand investment, both to my patrons and myself. It had a reciprocal influence, first, being the medium of edification to the diligent practitioner, and, secondly, through his instrumentality, beneficial to the community at large. My good wishes both to the AMERICAN VETERINARY REVIEW and its worthy editors. May success crown your noble work.—*D. F. Bowersox, Aaronsburg, Pa.*

ALEX. EGER, 34 East Van Buren St., Chicago, Ill.,

Veterinary Publisher, and dealer in Veterinary Books, Drugs and Instruments, is the authorized agent of the REVIEW in Chicago and the Middle West, and will receive subscriptions and advertisements at publisher's prices.

SECRETARIES OF V. M. ASSOCIATIONS

Can make money for themselves and do much good to their profession by getting up Subscription Clubs for the REVIEW. Write us for club rates and full information.

REVIEWS TO EXCHANGE.

I have the following duplicate numbers of the AMERICAN VETERINARY REVIEW, which I would like to exchange for numbers *below* Vol. X:—Vol. XI, No. 5; Vol. XIV, No. 3; Vol. XV, Nos. 3 and 5; Vol. XVIII, No. 5; Vol. XIX, Nos. 11 and 12; Vol. XX, No. 2; Vol. XXI, No. 2; Vol. XXII, No. 1; Vol. XXIII, No. 6. Correspondence solicited for earlier volumes. Address WM. H. GRIBBLE, D.V.S., Washington C. H., Ohio.

AUGUST, SEPTEMBER AND OCTOBER, 1900, REVIEWS WANTED.

The publishers will give 25 cents each for copies of the above numbers. Address Robert W. Ellis, D.V.S., Business Manager, 509 W. 152d St., New York City.

ply
for
xe-
ons
ear
g a
ap-
ned
me
em,
in

ars
nat
ng

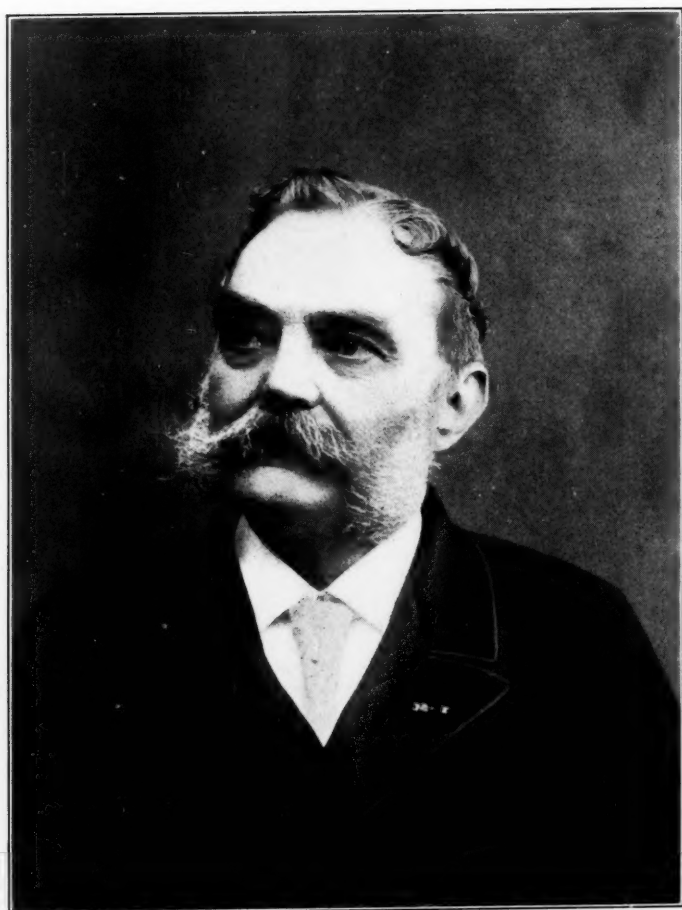
ade
al-
lly
nt,
ce,
er,
he
AN
ess

the
ive

up

w,
ol.
and
6.
S.,

.
ess



L. Hantani

